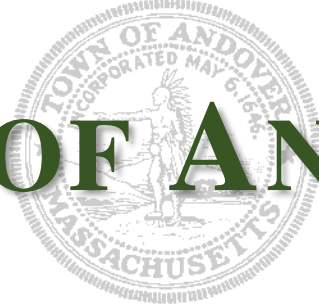
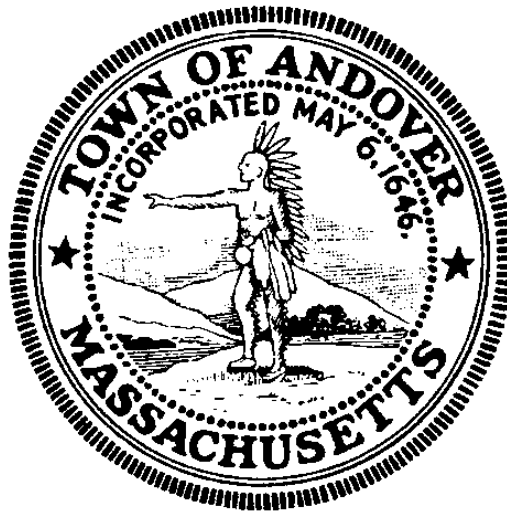


# TOWN OF ANDOVER



## **TOWN MANAGER'S RECOMMENDED CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022**

**TOWN OF ANDOVER  
CAPITAL IMPROVEMENT  
PROGRAM  
FY2018 – FY2022**



**ANDREW P. FLANAGAN  
TOWN MANAGER  
NOVEMBER 3, 2016**

# TOWN OF ANDOVER

## MISSION & VALUES STATEMENT

*Developed by the  
Board of Selectmen, Town Manager, and Town Department Heads  
Adopted by the Board of Selectmen on October 6, 2003*

The mission of the Town of Andover is to ensure the safety, education, and well-being of the community; to be a leader in the delivery of efficient and effective quality services that respond to community needs; to promote the continuous improvement of staff skills and performance; to encourage an environment of trust; to respect cultural and economic diversity; and to preserve the historic character of the community.

The Board of Selectmen, as the chief policy makers for the Town of Andover, Massachusetts, will provide leadership in advancing the following primary and supporting values:

### **VALUE 1 – ENSURE THE SAFETY, EDUCATION, AND WELL-BEING OF THE COMMUNITY**

- 1.1 Protect the safety of persons and property
- 1.2 Maintain the high quality of education for all
- 1.3 Maintain the Town’s infrastructure
- 1.4 Promote public health programs and awareness
- 1.5 Manage the impact of non-municipal public utilities
- 1.6 Support human/community services
- 1.7 Ensure compliance with regulatory requirements
- 1.8 Identify and promote economic opportunities

### **VALUE 2 – BE A LEADER IN THE DELIVERY OF EFFICIENT AND EFFECTIVE QUALITY SERVICES THAT RESPOND TO COMMUNITY NEEDS**

- 2.1 Deliver innovative municipal services
- 2.2 Encourage cost saving initiatives
- 2.3 Assess and prioritize community needs
- 2.4 Maintain the Town’s “Aaa” bond rating

### **VALUE 3 – PROMOTE THE CONTINUOUS IMPROVEMENT OF STAFF SKILLS AND PERFORMANCE**

- 3.1 Recruit, develop, and retain a highly skilled workforce

- 3.2 Promote and recognize municipal professionalism
- 3.3 Measure, evaluate, and improve performance

### **VALUE 4 – ENCOURAGE AN ENVIRONMENT OF TRUST AND HONESTY**

- 4.1 Uphold high ethical standards
- 4.2 Value teamwork and cooperation
- 4.3 Promote open communication with the public
- 4.4 Solicit citizen participation
- 4.5 Recognize the outstanding contributions of citizens

### **VALUE 5 – RESPECT CULTURAL AND ECONOMIC DIVERSITY**

- 5.1 Promote diversity in the workforce and community
- 5.2 Provide services that are accessible, fair, and equitable
- 5.3 Support housing alternatives

### **VALUE 6 – PRESERVE THE HISTORIC CHARACTER OF THE COMMUNITY**

- 6.1 Celebrate Andover’s unique heritage
- 6.2 Protect and acquire open space

# FY18 BUDGET & TOWN MEETING PLANNING CALENDAR

## 2016-2017

PLANNED DATE	TASK, ACTION, DEADLINE	PRIMARY RESPONSIBILITY
July 28, 2016	Issue FY2018-FY2022 Capital Improvement Plan request forms	Finance Director
August 24, 2016	Financial Roundtable Tri-Board Meeting	Town Manager
September 2, 2016	Dept. CIP requests due to Budget & Finance	Department Heads, School Supt
October 5, 2016	Staff review of Departmental CIP requests (two days)	Town Manager, Dept. Heads, School Supt.
October 24, 2016	2017 ATM Warrant opens	Board of Selectmen
November 3, 2016	Town Manager's Recommended FY18-FY22 CIP released	Town Manager, Dep. TM, Finance Director
November 17, 2016	Advertise Tax Classification Hearing and CIP Public Hearing	Town Manager
November 18, 2016	Issue FY2018 Operating Budget Request Forms & Instructions	Finance Director
November 22, 2016	Mid-Year Review	Board of Selectmen/Town Manager
November 28, 2016	Tax Classification Public Hearing / CIP Public Hearing	Board of Selectmen / Chief Assessor
December 5, 2016	Tax Classification vote	Board of Selectmen / Chief Assessor
December 7, 2016	Tri-Board Meeting: CIP Review, FY18 Rev. & Exp. projections	BoS, Fin. Comm. & Sch. Comm.
December 9, 2016	Town sponsored warrant articles submitted to Town Manager	Department Heads, School Supt., Boards
December 19, 2016	Selectmen vote to accept FY18 CIP	Board of Selectmen
December 30, 2016	FY2018 Operating Budget Requests submitted to Town Manager	Department Heads
January 27, 2017	Town Meeting Warrant closes	Board of Selectmen
February 3, 2017	Town Manager's FY18 Recommended Budget released	Town Manager, Dep. TM, Finance Director
February 22, 2017	Start Warrant Article Review & Votes	Board of Selectmen, Finance Committee
March 4, 2017	Department Operating Budget presentations (joint mtg.)	Department Heads
March 8, 2017	School FY17 Operating Budget presentation (tri-board)	School Superintendent & School Committee
March 21, 2017	Complete Budget & Warrant Article Votes	Board of Selectmen, Finance Committee
March 22, 2017	Final Budget votes due to Fin Com for Town Meeting Report	Board of Selectmen, Finance Committee
March 22, 2017	Final Votes on Water & Sewer Budgets & Rates	Water & Sewer Commissioners
March 27, 2017	Final Warrant Article Votes	Board of Selectmen, Finance Committee
March 28, 2017	Annual Town Election	Town Clerk
March 29, 2017	Final Votes and Chair Letters to the Finance Committee	Board of Selectmen, School Committee
April 4, 2017	Fin Com Report for Town Meeting sent to printer	Finance Committee
April 13, 2017	LWV Budget Forum	All
April 17, 2017	Deadline for Posting and Publishing Town Meeting Warrant	All
April 21, 2017	Fin Com Report mailed to residents	Printer
April 25, 2017	Town Meeting Preparation (speaking assignments, coordination, etc)	All
April 27, 2017	Moderator's Preparation Meeting	All
May 1, 2017	First night of the 2017 Annual Town Meeting	All



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Andrew P. Flanagan  
Town Manager

# TOWN OF ANDOVER

TOWN MANAGER'S OFFICE  
36 BARTLET STREET  
ANDOVER, MA 01810  
(978) 623-8200  
WWW.ANDOVERMA.GOV

November 1, 2016

Paul J. Salafia, Chairman, and  
Members of the Board of Selectmen  
Town Offices  
36 Bartlet Street  
Andover, MA 01810

Dear Chairman Salafia and Members of the Board:

I am pleased to present the Town Manager's Recommended Capital Improvement Program (CIP) for FY 2018 – FY 2022. This is the twenty-sixth annual Capital Improvement Program. The CIP Bylaw requires that the Town Manager present the Board of Selectmen with the Town's capital needs for the next five years as the first step in the annual Budget development process.

The Town Manager's Recommended Capital Improvement Program for FY 2018 totals \$33,028,163. The revenue sources shown to the right provide the funding for the projects:

General Fund Revenue	3,743,875
General Fund Borrowing	22,110,000
Use of Free Cash	300,000
General Fund Exempt Borrowing	0
Special Dedicated Funds	1,499,288
Water and Sewer Enterprise Funds	5,375,000
<b>Total Recommendation</b>	<b>\$ 33,028,163</b>

The following is a brief summary of the highlights in this year's CIP. The details of the recommended projects as well as the individual items in the Capital Projects Fund are shown on the following pages. As in every past CIP, the requests far exceed the resources available to address them; however, the CIP is the beginning of the budget process for FY 2018 and future years.

## ESTABLISHING A "TARGET"

Standard and Poor's continues to affirm Andover's credit worthiness and the Town's "AAA" General Obligation bond rating. In fact, the most recent report gives Andover a "strong or very strong" rating on each of the seven assessment factors: economy, budget flexibility, budgetary performance, liquidity, management conditions, debt and contingent liability profile and institutional framework.

Notwithstanding the Town's legacy of prudent financial planning and commitment to fiscal stability, we have continued to make a major commitment in developing a Capital Improvement Program that establishes predictability and consistency in the capital planning process. Senior Management and Town staff have been challenged to carefully plan future year requests. The key to successful capital

planning requires aligning projects with departmental priorities and scheduling major capital investments in a manner that responsibly integrates with the Town's debt schedule. Over the past year, I have presented a spending target that is both sustainable in the context of the limitations of Proposition 2 ½ and ensures that we are able to meet the long term needs of our community. The non-exempt target has been set at 5.72% with a goal to increase to 6% over the next five years. The FY 2018 recommended CIP is balanced and supports investments in all functions of Town government within the context of our plan. The framework of the target is shown to the right.

<b>Prior Non-Exempt Debt Service</b>
<b>+</b>
<b>New Non-Exempt Debt Service</b>
<b>+</b>
<b>General Fund Revenue</b>
<b>=</b>
<b>Total Non- Exempt Plan</b>

The FY 2018 Recommended CIP meets the 5.72% target and the following four years of the CIP fluctuate for a five year average of 5.76%. While the plan will evolve as we move forward, below is a summary of anticipated expenditures and the financing plan for the next five years:

<i>Fiscal Year</i>	<i>FY 2018</i>	<i>FY 2019</i>	<i>FY 2020</i>	<i>FY 2021</i>	<i>FY 2022</i>
<b>General Fund</b>					
<i>Prior Non-Exempt Debt</i>	4,468,668	4,172,157	3,733,166	3,455,984	3,339,623
<i>Capital Projects from Taxation</i>	3,743,875	3,086,843	3,237,029	3,007,609	3,310,568
<i>New Non-Exempt Debt Service</i>		1,090,859	1,907,125	2,422,410	2,744,310
<i>Non-Exempt Debt To Be Issued FY17/FY18</i>	1,030,150	1,046,022	1,273,519	1,510,591	1,291,197
<i>Total Non-Exempt Tax Burden</i>	9,242,693	9,395,881	10,150,839	10,396,594	10,685,698
<i>Pro Forma Adjusted Revenue Budget</i>	161,804,646	167,341,633	173,037,551	178,822,316	184,730,060
<i>Budget for Plan at 5.72%</i>	5.72%	5.72%	5.72%	5.72%	5.72%
<i>Plan as % of Adjusted Revenues</i>	9,255,226	9,571,941	9,897,748	10,228,636	10,566,559
<i>Variance from Budget</i>	(12,533)	(176,061)	253,091	167,958	119,139

#### FIVE YEAR FINANCIAL MODEL

On August 24, 2016, I presented the framework for a five year financial model to the Board of Selectmen, Finance Committee and School Committee. The model is predicated on a series of assumptions for both revenues and appropriations that will continue to be reviewed throughout the budget process by the Long Range Financial Planning Working Group. The current version of the model can be found on page 119 of this document.

#### CAPITAL PROJECT FUND (GENERAL FUND REVENUE)

The recommendation for the Capital Project Fund is \$3,743,875 from General Fund Revenues. This sum represents 2.31% of the 5.72% target for total capital expenditures. The recommendation for funding Town requests is \$2,248,232 and \$1,495,643 for School Department requests. The FY 2018 recommended CIP does not include funding for textbooks. This split is consistent with the distribution of resources from the Capital Project Fund over the past several years. Funding is being recommended specifically for Town and School facility repairs and improvements. Additionally, funds are being

recommended for departmental projects including a feasibility analysis for the Center on Punchard, Security at Pumps Pond, training devices for the Police Department, a Customer Service Building Improvement Study for Town Offices, Police and Municipal Services Vehicle Replacement and upgrades to the Board of Selectmen and School Committee Meeting rooms. It should be noted that FY 2018 will be the first year the IT-1 (Annual PC Lease Program) will be funded from general fund revenue as opposed to cable funds.

#### FREE CASH

The estimated Free Cash balance for FY 2017 is \$4M. \$300,000 from Free Cash is being recommended for the purposes of proceeding with the design of the renovation/rebuild of the Ballardvale Fire Station. These funds will supplement funds previously appropriated by Town Meeting and the results of the study will inform the Town as to the costs and best approach to proceeding with a construction phase. At this time, construction costs are not included in the debt model as we hope to leverage the financial impact of the future sale or lease of 11 Lewis Street on the Town's debt schedule.

#### GENERAL FUND BORROWING

General Fund Borrowing includes ten projects totaling \$22,110,000 for FY 2018. The sum of \$17,850,000 is recommended for construction of a new Municipal Services Facility at 5 Campanelli Drive. This project is currently in design phase and the requested appropriation will continue to be revised leading up to Town Meeting. An authorization of \$450,000 is being recommended to fund the replacement of Municipal Services – DPW Vehicles. Town and School major projects are recommended at \$320,000 and \$770,000 respectively. The School Department requested \$775,000 to install air conditioning at High Plain/Woodhill to facilitate summer programming. The recommendations also include \$300,000 to proceed with Phase 2 of the safety and communications upgrade project and \$300,000 to fund a fiber redundancy project. Additionally, \$420,000 is being recommended to continue the Town and School's energy initiatives and \$270,000 is recommended to replace Ambulance 2, a first line piece of emergency apparatus.

The complete reconstruction (including water & sewer infrastructure) of Enmore Street is also being recommended. This request includes \$655,000 from general fund borrowing and will be further supplemented by the repurposing of sewer funds to complete that component of the project.

#### GENERAL FUND EXEMPT BORROWING

There are no major capital projects being recommended this year that require General Fund Exempt Borrowing and therefore a Prop 2½ debt exemption vote. Over the past year the Town and the School Department collaborated on a Facility Master Plan that evaluated the existing condition of our facilities and detailed the potential investment required to proceed with a comprehensive facility improvement program. Over the next several months, community discussions will continue in order to best prioritize how we move forward.

#### SPECIAL DEDICATED FUNDS

There are two projects being recommended from Special Dedicated Funds. Chapter 90, Major Annual Road Maintenance, is recommended at \$1.37M. In addition, \$123,000 from the parking fund is being recommended. The Parking Study Implementation Committee has spent several months preparing recommendations for the Board of Selectmen's consideration. These funds will provide the Town with the resources to proceed with the implementation phase of the project.

## WATER AND SEWER ENTERPRISE FUND

The Water and Sewer Enterprise Fund has eight recommended projects for FY 2018 totaling \$5,375,000. The recommendations for FY 2018 are consistent with the five Year Water & Sewer Rate Structure adopted by the Board of Selectmen. The model assumes a 2.5% annual increase in both water and sewer rates. The model includes funding for extensive capital investments in both the water and sewer systems including upgrades at the water treatment plant and increasing the funding for major water main replacement by 100% to a total of \$3M. Other recommended projects include replacement of the electrical substation and heating system at the water treatment plant, replacement of the Bancroft Lift Pumps, replacement of Water & Sewer Division vehicles, and continuation of the hydrant replacement program.

## CONCLUSION

I will present the CIP to the Board of Selectmen at the Public Hearing on November 15, 2016. A Tri-Board meeting will be held on Wednesday, December 7, 2016 to discuss the CIP and the revenue and expenditure forecast and assumptions for FY 2018. The Board of Selectmen will discuss and formally adopt the CIP at their meeting on Monday, December 19, 2016. The CIP document is posted in its entirety on the Town's website at [www.andoverma.gov](http://www.andoverma.gov).

I would like to take this opportunity to thank Finance Director Donna M. Walsh and Deputy Town Manager John S. Mangiaratti for all of their contributions that have supported the production of this year's CIP. I would also like to thank the Department and Division Heads who have been thoughtful in the preparation of their requests and available to answer my questions, provide historical perspectives and contribute to the development of the program. I want to extend my appreciation to Superintendent Berman and his team for their participation in the capital budgeting process. The Superintendent has been a collaborative partner in the development of the plan and I look forward to working with him as we move it forward.

The recommendations presented in this CIP begin the public discussion about both fiscal and program priorities for FY 2018 and the subsequent four years. I look forward to reviewing these recommendations with the Board of Selectmen, School Committee, Finance Committee and our residents. My Administration will be committed to providing the information and resources necessary to fully inform the policy discussions that will take place in the coming months and will set forth recommendations that are reflective of those discussions and directed toward meeting the service expectations of Andover residents. The goal of our deliberations is to develop a Capital Improvement Plan and Operating Budget that is well-reasoned, balanced and justified within the Town's available revenues.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'A. Flanagan', is written over a faint, larger blue ink signature that is partially obscured.

Andrew P. Flanagan  
Town Manager



**FISCAL YEAR 2018  
CAPITAL IMPROVEMENT PROGRAM (CIP)  
TOWN MANAGER'S RECOMMENDATIONS  
AND FUNDING SUMMARY**

The Town's Department Heads submitted CIP requests totaling \$40.2 million for FY2018. Those requests were thoroughly discussed and considered during a series of internal group and individual review sessions. Based on the results of those sessions and the projected availability of funds as of this date, the Town Manager recommends a total FY18 CIP of \$33,028,163 from the following funding sources:

General Fund Revenue:	\$ 3,743,875
Free Cash:	\$ 300,000
General Fund Borrowing:	\$22,110,000
Special Dedicated Funds:	\$ 1,499,288
Water & Sewer Enterprise Funds:	<u>\$ 5,375,000</u>

**Town Manager's Total CIP Recommendation for FY18: \$ 33,028,163**

**From General Fund Revenue:**

It is recommended that the following capital projects be funded with General Fund Revenue. This is the annual "pay-as-you-go" funding from FY2018 tax dollars which will be presented as the Capital Projects Fund appropriation article at the Annual Town Meeting:

CS-1	Center at Punchard-Feasibility Study	\$40,000
CS-2	Rec Park/Pomps Pond Security Monitoring	\$65,000
CS-3	Phillip Auditorium Tables and Chairs	\$32,214
CS-4	Design Services for the Park & Playstead	\$75,000
TM-3	Town Offices Customer Service Bldg Study	\$40,000
TC-2	Vault Shelving	\$30,000
FIN-1	MUNIS Software	\$35,000
CON-1	Conservation Land Management	\$12,000
IT-1	Annual PC Leasing Program	\$442,018
IT-4	Selectmen and School Comm Room Upgrades	\$50,000
IT-7	Web Site Development Phase 2	\$10,000
POL-1	Police Vehicle Replacement	\$195,000
POL-2	Police Firearms/DT Scenario Trainer	\$78,500
POL-4	Police Roadside Message Board	\$20,000
FR-1	Fire Vehicle Replacement	\$53,000
FR-2	EMS Call Box for Pomps Pond	\$10,500
DPW-2	Minor Sidewalk Repairs	\$100,000
DPW-6	Storm Water Management	\$100,000
DPW-7a	Public Works Vehicles - Small	\$215,000
DPW-28	Spring Grove Cemetery Improvements	\$20,000
P&F-1	Town Projects - Buildings	\$275,000
P&F-2	Town Projects – Mech. & Electrical	\$170,000
P&F-4a	Town Vehicle Replacement	\$105,000
P&F-8	Town Playground Replacements	\$75,000
SCH	School Capital Projects (SCH-1, SCH-2, IT-2, IT-3)	<u>\$1,495,643</u>

**Total from General Fund Revenue \$3,743,875**

**From Free Cash:**

It is recommended that the following projects, that would normally be funded by borrowing, be funded with Free Cash to save on long-term interest costs:

TM-2	Ballardvale Fire Station Design	<u>\$300,000</u>
<b>Total from Free Cash</b>		<b>\$300,000</b>

**From General Fund Borrowing:**

It is recommended that the following capital projects be funded through General Fund Borrowing:

DPW-7b	Public Works Vehicles - Large	\$450,000
FR-1	Fire Apparatus Replacement – Ambulance 2	\$270,000
P&F-6	Major Town Projects	\$320,000
P&F-7	Town and School Energy Initiatives	\$420,000
TM-1	Municipal Services Facility	\$17,850,000
IT-5	Safety and Communications Upgrade Phase 2	\$300,000
IT-6	Redundant Fiber	\$300,000
DPW-25	Enmore Street Reconstruction	\$655,000
SCH-5	Major School Projects	\$770,000
SCH-11	High Plain/Woodhill Air Condition Upgrade	<u>\$775,000</u>
<b>Total from General Fund Borrowing</b>		<b>\$22,110,000</b>

**From Special Dedicated Funds:**

It is recommended that the following two recurring capital programs be funded through Special Dedicated Funds:

PRK-1	Parking Study Implement (Parking Fund)	\$123,000
DPW-1	Annual Road Maintenance (Ch 90)	<u>\$1,376,288</u>
<b>Total from Special Dedicated Funds</b>		<b>\$1,499,288</b>

**From Water and Sewer Enterprise Funds:**

It is recommended that the following capital projects be funded through Water and Sewer Enterprise Funds:

DPW-12	Water & Sewer Vehicles (WER)	\$100,000
DPW-14	Water Main Replacement Projects (WEB)	\$3,000,000
DPW-17	Hydrant Replacement Program (WER)	\$100,000
DPW-21	WTP Electrical Substation Replacement (WEB)	\$500,000
DPW-22	Bancroft High Lift Pumps (WEB)	\$750,000
DPW-24	Minor Sanitary Sewer Collection Sys Imp (SER)	\$50,000
DPW-25a	Enmore Street Reconstruction (WER)	\$50,000
DPW-25b	Enmore Street Reconstruction (SEB)*	\$525,000
DPW-27	WTP New Heating System (WEB)	<u>\$300,000</u>
<b>Total from Water &amp; Sewer Enterprise Funds</b>		<b><u>\$5,375,000</u></b>

**CIP Total for FY18**

**\$33,028,163**

\* Previous articles will be re-purposed

TOWN OF ANDOVER  
**TOWN MANAGER'S RECOMMENDED CAPITAL IMPROVEMENT PROGRAM**  
 FY2018 - FY2022

Rqst. #	P. #	Request Title	Dept. Rqst. FY2018	TM's Rec. FY2018	TM's Plan FY2019	TM's Plan FY2020	TM's Plan FY2021	TM's Plan FY2022	Town Manager's Comments
<b>General Fund Revenue (Capital Projects Fund)</b>									
CS-1	18	Center at Punchard - Feasibility Study/Design	\$40,000	\$40,000		\$160,000			
CS-2	19	Rec Park/Pumps Pond Security Monitoring System	\$65,000	\$65,000					
CS-3	20	Phillips Auditorium Tables and Chairs	\$64,870	\$32,214					
CS-4	21	Design Services for the Park, Playstead & Mun Comp	\$75,000	\$75,000					
TM-3	107	Town Offices Customer Service Bldg. Improvement S	\$40,000	\$40,000					
TC-1	103	Electronic Poll Books	\$30,000						
TC-2	104	Vault Shelving	\$30,000	\$30,000					
FIN-1	49	MUNIS Software	\$35,000	\$35,000	\$15,000	\$15,000	\$15,000	\$15,000	
CON-1	17	Conservation Land Management	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	
IT-1	55	Annual PC Leasing Program	\$442,018	\$442,018	\$437,500	\$437,686	\$442,266	\$446,845	
IT-4	60	Selectmen and SC Room Upgrades	\$100,000	\$50,000					
IT-7	64	Web Site Development Phase 2	\$30,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	
IT-8	65	Video Platform Phase 2	\$50,000						
POL-1	78	Police Vehicle Replacement	\$215,000	\$195,000	\$215,000	\$225,000	\$225,000	\$235,000	
POL-2	80	Police Firearms/DT Scenario Trainer	\$78,500	\$78,500					
POL-3	81	Community Support Coordinator Multi Passenger Van	\$35,000						
POL-4	82	Roadside Message Board	\$20,000	\$20,000					
FR-1	50	Fire Vehicle Replacement	\$53,000	\$53,000	\$70,000		\$53,000		
FR-2	54	Emergency Services Call Box for Pumps Pond	\$10,500	\$10,500					
DPW-2	23	Minor Sidewalk Repairs	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	
DPW-6	25	Storm Water Management	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	
DPW-7a	27	Public Works Vehicles - Small	\$215,000	\$215,000	\$169,000	\$136,000	\$205,000	\$103,000	
DPW-28	47	Spring Grove Cemetery Improvements	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	
P&F-1	66	Town Projects - Buildings	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	
P&F-2	68	Town Projects - Mechanical & Electrical	\$170,000	\$170,000	\$170,000	\$170,000	\$170,000	\$170,000	
P&F-4	70	Town Vehicle Replacement	\$105,000	\$105,000	\$101,000	\$139,000	\$143,000	\$96,000	
P&F-6	71	Major Town Projects (Borrowing FY18-FY21)						\$205,000	
P&F-8	76	Town Playground Replacements	\$75,000	\$75,000	\$200,000	\$400,000	\$250,000	\$200,000	
IT-2	57	Student Fleet Refresh	\$278,143		\$217,343	\$217,343	\$217,343	\$607,723	Recommendation in FY2018 = \$278,143
IT-3	59	Elementary School Projector Refresh	\$336,647						Recommendation in FY2018 = \$200,000
SCH-1	85	School Projects - All Schools	\$825,000		\$575,000	\$575,000	\$575,000	\$575,000	Recommendation in FY2018 = \$625,000
SCH-2	88	School Projects - By Building	\$392,500	\$1,495,643	\$400,000	\$245,000	\$195,000	\$140,000	Recommendation in FY2018 = \$392,500
SCH-3	91	School Textbooks	\$519,300						TM Does Not Support This Request
SCH-9	101	Multi-School Sprinkler and Fire Alarm Study	\$70,000						TM Does Not Support This Request
<b>Total General Fund Revenue</b>			<b>\$4,707,478</b>	<b>\$3,743,875</b>	<b>\$3,086,843</b>	<b>\$3,237,029</b>	<b>\$3,007,609</b>	<b>\$3,310,568</b>	
<b>Free Cash</b>									
TM-2	107	Ballardvale Fire Station Design	\$300,000	\$300,000					
<b>Total Free Cash</b>			<b>\$300,000</b>	<b>\$300,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

## TOWN MANAGER'S RECOMMENDED CAPITAL IMPROVEMENT PROGRAM

FY2018 - FY2022

Rqst. #	P. #	Request Title	Dept. Rqst. FY2018	TM's Rec. FY2018	TM's Plan FY2019	TM's Plan FY2020	TM's Plan FY2021	TM's Plan FY2022	Town Manager's Comments
<b>General Fund Borrowing</b>									
CS-1	18	Center at Punchard - Building Construction						\$1,732,000	
TM-1	105	Municipal Services Facility	\$17,850,000	\$17,850,000					\$9M in FY18, \$8M in FY19, \$850k in FY20 - Level Debt Service
IT-5	61	Safety and Communications Upgrade Phase 2	\$300,000	\$300,000					
IT-6	62	Redundant Fiber	\$300,000	\$300,000					
DPW-3	24	Road Maintenance	\$1,000,000						
DPW-7b	27	Public Works Vehicles - Large	\$450,000	\$450,000	\$455,000	\$550,000	\$485,000	\$400,000	
DPW-8	29	Minor Storm Drain Improvements			\$300,000		\$300,000		
DPW-9	30	Town Bridge Evaluation & Maintenance				\$500,000			
DPW-10	31	Reconstruction of Existing Sidewalks	\$1,109,000		\$1,760,000	\$509,000	\$1,165,000	\$659,000	
DPW-11	33	New Sidewalk Construction	\$1,032,000		\$999,000	\$1,733,000	\$722,000	\$2,441,000	
DPW-25	45	Enmore Street Reconstruction	\$655,000	\$655,000					
FR-1	50	Fire Apparatus Replacement - Ambulance 2	\$270,000	\$270,000	\$275,000	\$865,000	\$700,000	\$285,000	
P&F-6	71	Major Town Projects	\$320,000	\$320,000	\$345,000	\$375,000	\$240,000		
P&F-7	73	Town & School Energy Initiatives	\$420,000	\$420,000	\$330,000	\$1,210,000	\$1,550,000	\$350,000	
SCH-5	99	Major School Projects	\$770,000	\$770,000	\$933,000	\$950,000	\$400,000	\$475,000	
SCH-7	99	AHS Library/Media Center Renovation	\$3,000,000						
SCH-11	102	High Plain and Woodhill Air Condition Upgrade	\$775,000	\$775,000					
<b>Total General Fund Borrowing</b>			<b>\$28,251,000</b>	<b>\$22,110,000</b>	<b>\$5,397,000</b>	<b>\$6,692,000</b>	<b>\$5,562,000</b>	<b>\$6,342,000</b>	
<b>Special Dedicated Funds</b>									
PRK-1	83	Parking Study Implementation (Parking Funds)	\$123,000	\$123,000	\$75,000	\$75,000	\$75,000	\$75,000	
DPW-1	22	Major Annual Road Maintenance (Ch 90)	\$1,376,288	\$1,376,288	\$1,376,288	\$1,376,288	\$1,376,288	\$1,376,288	
<b>Total Special Dedicated Funds</b>			<b>\$1,499,288</b>	<b>\$1,499,288</b>	<b>\$1,451,288</b>	<b>\$1,451,288</b>	<b>\$1,451,288</b>	<b>\$1,451,288</b>	
<b>Water &amp; Sewer Enterprise Funds</b>									
DPW-12	35	Water & Sewer Vehicles (WER)	\$100,000	\$100,000	\$158,000	\$273,000	\$245,000	\$80,000	
DPW-13	37	Filter Backwash Discharge Tank (WEB)					\$4,500,000		
DPW-14	38	Water Main Replacement Projects (WEB)	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	
DPW-16	39	WTP Parking Area Reconstruction (WER)	\$110,000		\$110,000				
DPW-17	40	Hydrant Replacement Program (WER)	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	
DPW-18	41	Water Treatment GAC Replacement (WER)				\$400,000	\$400,000		
DPW-21	42	WTP Electrical Substation Replacement (WEB)	\$500,000	\$500,000	\$2,500,000	\$2,500,000			
DPW-22	43	Bancroft High Lift Pumps (WEB)	\$750,000	\$750,000					
DPW-24	44	Minor Sanitary Sewer Collections System Imp (SER)	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	
DPW-25a	45	Enmore Street Reconstruction (WER)	\$50,000	\$50,000					
DPW-25b	45	Enmore Street Reconstruction (SEB)	\$525,000	\$525,000					Repurpose previous borrowing
DPW-27	46	WTP New Heating System( WEB)	\$300,000	\$300,000					
DPW-29	48	Fish Brook Pump Station Replacement						\$15,000,000	
<b>Total Water &amp; Sewer Enterprise Funds</b>			<b>\$5,485,000</b>	<b>\$5,375,000</b>	<b>\$5,918,000</b>	<b>\$6,323,000</b>	<b>\$8,295,000</b>	<b>\$18,230,000</b>	
<b>Total All Requests</b>			<b>\$40,242,766</b>	<b>\$33,028,163</b>	<b>\$15,853,131</b>	<b>\$17,703,317</b>	<b>\$18,315,897</b>	<b>\$29,333,856</b>	

## Fiscal Year 2018 Recommendations - Funded by General Fund Revenue

	18	19	20	21	22	Grand Total
<b>Community Services</b>	<b>212,214</b>		<b>160,000</b>			<b>372,214</b>
Design Services for Park/Playstead	75,000					75,000
Phillips Auditorium Tables and Chairs	32,214					32,214
Rec Park/Pomps Pond Security	65,000					65,000
Center at Punchard Feasibility Study	40,000		160,000			200,000
<b>Conservation</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>60,000</b>
Conservation Land Management	12,000	12,000	12,000	12,000	12,000	60,000
<b>DPW</b>	<b>435,000</b>	<b>389,000</b>	<b>356,000</b>	<b>425,000</b>	<b>323,000</b>	<b>1,928,000</b>
Storm Water Management	100,000	100,000	100,000	100,000	100,000	500,000
Public Works Vehicles - Small	215,000	169,000	136,000	205,000	103,000	828,000
Minor Sidewalk Repairs	100,000	100,000	100,000	100,000	100,000	500,000
Spring Grove Cemetery Improvements	20,000	20,000	20,000	20,000	20,000	100,000
<b>Finance</b>	<b>35,000</b>	<b>15,000</b>	<b>15,000</b>	<b>15,000</b>	<b>15,000</b>	<b>95,000</b>
MUNIS Financial Software Improvements	35,000	15,000	15,000	15,000	15,000	95,000
<b>Fire</b>	<b>63,500</b>	<b>70,000</b>		<b>53,000</b>		<b>186,500</b>
Emergency Services Call Box	10,500					10,500
Fire Rescue Vehicles - Small	53,000	70,000		53,000		176,000
<b>IT</b>	<b>980,161</b>	<b>664,843</b>	<b>665,029</b>	<b>669,609</b>	<b>1,064,568</b>	<b>4,044,210</b>
Selectmen and SC Room Upgrades	50,000					50,000
Web Site Development Phase 2	10,000	10,000	10,000	10,000	10,000	50,000
Annual Staff Fleet Refresh	442,018	437,500	437,686	442,266	446,845	2,206,315
Annual Student Fleet Refresh	278,143	217,343	217,343	217,343	607,723	1,537,895
Elementary Interactive Projector Refresh Phase 2	200,000					200,000
<b>P&amp;F</b>	<b>625,000</b>	<b>746,000</b>	<b>984,000</b>	<b>838,000</b>	<b>946,000</b>	<b>4,139,000</b>
Town Projects - Buildings	275,000	275,000	275,000	275,000	275,000	1,375,000
Town Projects - Mechanical & Electrical	170,000	170,000	170,000	170,000	170,000	850,000
Town Vehicle Replacement	105,000	101,000	139,000	143,000	96,000	584,000
Major Town Projects					205,000	205,000
Town Playground Replacements	75,000	200,000	400,000	250,000	200,000	1,125,000
<b>Police</b>	<b>293,500</b>	<b>215,000</b>	<b>225,000</b>	<b>225,000</b>	<b>235,000</b>	<b>1,193,500</b>
Police Firearms/DT Scenario Trainer	78,500					78,500
Roadside Message Board	20,000					20,000
Police Vehicle Relacement	195,000	215,000	225,000	225,000	235,000	1,095,000
<b>School</b>	<b>1,017,500</b>	<b>975,000</b>	<b>820,000</b>	<b>770,000</b>	<b>715,000</b>	<b>4,297,500</b>
School Projects - All Schools	625,000	575,000	575,000	575,000	575,000	2,925,000
School Projects - By Building	392,500	400,000	245,000	195,000	140,000	1,372,500
<b>TC</b>	<b>30,000</b>					<b>30,000</b>
Vault Shelving	30,000					30,000
<b>TM</b>	<b>40,000</b>					<b>40,000</b>
Town Offices Customer Service Bldg Improvement St	40,000					40,000
<b>Grand Total</b>	<b>3,743,875</b>	<b>3,086,843</b>	<b>3,237,029</b>	<b>3,007,609</b>	<b>3,310,568</b>	<b>16,385,924</b>

## Fiscal Year 2018 Recommendations - Funded by General Fund Borrowing

	18	19	20	21	22	Grand Total
<b>Community Services</b>						
Center at Punchard Construction				1,732,000	1,732,000	1,732,000
<b>DPW</b>	1,105,000	755,000	1,050,000	785,000	400,000	4,095,000
Enmore St Reconstruction	655,000					655,000
Public Works Vehicles - Large	450,000	455,000	550,000	485,000	400,000	2,340,000
Minor Storm Drain Improvements		300,000		300,000		600,000
Town Bridge Evaluation & Maintenance			500,000			500,000
<b>Fire</b>	270,000	275,000	865,000	700,000	285,000	2,395,000
Fire Rescue Vehicles - Large	270,000	275,000	865,000	700,000	285,000	2,395,000
<b>IT</b>	600,000					600,000
Redundant Fiber	300,000					300,000
Safety and Communications Upgrade Phase 2	300,000					300,000
<b>P&amp;F</b>	740,000	775,000	805,000	790,000	330,000	3,440,000
Major Town Projects	320,000	345,000	375,000	240,000		1,280,000
Town and School Energy Initiatives	420,000	430,000	430,000	550,000	330,000	2,160,000
<b>School</b>	1,545,000	933,000	950,000	400,000	475,000	4,303,000
High Plain/Woodhill Air Condition Upgrade	775,000					775,000
Major School Projects	770,000	933,000	950,000	400,000	475,000	3,528,000
<b>TM</b>	9,000,000	8,000,000	850,000			17,850,000
Municipal Services Facility	9,000,000	8,000,000	850,000			17,850,000
<b>Water</b>	4,550,000	5,500,000	5,500,000	7,500,000	18,000,000	41,050,000
Filter Backwash Discharge Tank				4,500,000		4,500,000
Water Main Replacement Projects	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
WTP Electrical Substation Replacement	500,000	2,500,000	2,500,000			5,500,000
Bancroft High Lift Pumps	750,000					750,000
WTP New Heating System	300,000					300,000
Fish Brook Pump Station Replacement					15,000,000	15,000,000
<b>Grand Total</b>	<b>17,810,000</b>	<b>16,238,000</b>	<b>10,020,000</b>	<b>10,175,000</b>	<b>21,222,000</b>	<b>75,465,000</b>



## Recommended Fiscal Year 2018-2022 Debt Service

	Funding					
	Recommend	FY 18	FY 19	FY 20	FY 21	FY 22
<b>DPW</b>	<b>4,095,000</b>	<b>0</b>	<b>127,342</b>	<b>226,163</b>	<b>362,168</b>	<b>458,722</b>
Enmore St Reconstruction	655,000	0	66,592	65,063	63,535	62,007
Public Works Vehicles - Large	2,340,000	0	60,750	120,600	191,683	252,065
Minor Storm Drain Improvements	600,000	0	0	40,500	39,450	78,900
Town Bridge Evaluation & Maintenance	500,000	0	0	0	67,500	65,750
<b>Fire</b>	<b>2,395,000</b>	<b>0</b>	<b>63,450</b>	<b>126,185</b>	<b>239,145</b>	<b>326,803</b>
Fire Rescue Vehicles - Large	2,395,000	0	63,450	126,185	239,145	326,803
<b>IT</b>	<b>600,000</b>	<b>0</b>	<b>141,000</b>	<b>136,800</b>	<b>132,600</b>	<b>128,400</b>
Redundant Fiber	300,000	0	70,500	68,400	66,300	64,200
Safety and Communications Upgrade Phase 2	300,000	0	70,500	68,400	66,300	64,200
<b>P&amp;F</b>	<b>3,440,000</b>	<b>0</b>	<b>99,900</b>	<b>201,935</b>	<b>305,308</b>	<b>403,838</b>
Major Town Projects	1,280,000	0	43,200	88,655	136,953	165,713
Town and School Energy Initiatives	2,160,000	0	56,700	113,280	168,355	238,125
<b>School</b>	<b>4,303,000</b>	<b>0</b>	<b>169,825</b>	<b>291,729</b>	<b>412,662</b>	<b>456,020</b>
High Plain/Woodhill Air Condition Upgrade	775,000	0	65,875	64,519	63,163	61,806
Major School Projects	3,528,000	0	103,950	227,210	349,500	394,214
<b>TM</b>	<b>17,850,000</b>	<b>0</b>	<b>489,342</b>	<b>924,313</b>	<b>970,528</b>	<b>970,528</b>
Municipal Services Facility	17,850,000	0	489,342	924,313	970,528	970,528
<b>Water</b>	<b>41,050,000</b>	<b>0</b>	<b>401,750</b>	<b>860,763</b>	<b>1,310,150</b>	<b>1,919,913</b>
Filter Backwash Discharge Tank	4,500,000	0	0	0	0	382,500
Water Main Replacement Projects	15,000,000	0	255,000	504,750	749,250	988,500
WTP Electrical Substation Replacement	5,500,000	0	42,500	254,125	461,375	451,750
Bancroft High Lift Pumps	750,000	0	63,750	62,438	61,125	59,813
WTP New Heating System	300,000	0	40,500	39,450	38,400	37,350
Fish Brook Pump Station Replacement	15,000,000	0	0	0	0	0
<b>Community Services</b>	<b>1,732,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Center at Punchard Construction	1,732,000	0	0	0	0	0
<b>Grand Total</b>	<b>75,465,000</b>	<b>0</b>	<b>1,492,609</b>	<b>2,767,887</b>	<b>3,732,560</b>	<b>4,664,223</b>

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Conservation Land Management***

CON-1

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$12,000  
**Original Dept. Request:** \$12,000  
**Submitted by:** Conservation Division  
**Department:** CD&P  
**Funding Source:** General Fund Revenue

**Project Description:**

Annual budget for maintenance, surveying, land management, security gates and other improvements to foster the use of land currently owned by the Town and under the care and custody of the Conservation Commission.

**Project Justification and Purpose:**

The requested funds will allow the Town to manage and preserve the 2000 acres of open space and conservation lands.

**Cost Estimate & Timing:**

\$12,000 per year

**Estimated Annual Cost or Savings of Operation and Maintenance:**

\$12,000

**Town Manager's Recommendation:**

Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$12,000	\$12,000
2019	\$12,000	\$12,000
2020	\$12,000	\$12,000
2021	\$12,000	\$12,000
2022	\$12,000	\$12,000

<b>Department Priority Ranking: 1</b> <i>(1 = highest, 2 = second highest, etc.)</i>	<b>TM's Rec. for FY18:</b> <b>\$40,000</b>
	<b>Original Dept. Request:</b> \$40,000 (Total \$1,932,600)
	<b>Submitted by:</b> Joseph Connelly
	<b>Department:</b> Community Services/ES
	<b>Funding Source:</b> General Fund
	Revenue/Borrowing

The purpose of the feasibility study is to identify a comprehensive list of needs, upgrades and repairs for the Center at Punchard focusing on customer service enhancements, accessibility improvements and ADA compliance upgrades. The Design Services will then capture the results of the feasibility study and prepare the final designs for the project. It is anticipated the construction project will take place in FY22.

In the Andover Facilities Master Plan prepared by MGT of America Consulting, the Center of Punchard was one of six facilities categorized in the highest priority in need of improvements. The current facility is an aging facility and does not adequately meet the current needs of our Andover Seniors.

Total Cost Feasibility Study \$40,000, Design Services \$160,000, Construction \$1,732,600 – Total Request - \$1,932,600. According to the Andover Facilities Master Plan the cost estimates for improving the Center at Punchard is \$1,732,600. The master plan time line has the facility being renovated in year 5 & 6 of the plan. The feasibility study is estimated to be \$40,000 and is being requested in FY 18 with an anticipated start date of Fall of 2017. An addition we are requesting \$160,000 for design services in FY20. The design service fee is approximately 10% of the estimated construction cost. The total for the project is being requested in FY22 as recommended by the facilities master plan.

This study is a onetime cost and should have no additional cost on or savings on current operations and/or maintenance. The results of the study will impact future capital requests.

The Town Manager supports funding this request for all years.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$40,000	\$40,000
2019		
2020	\$160,000	\$160,000
2021		
2022	\$1,732,600	\$1,732,600

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Rec Park and Poms Pond Security  
Monitoring System & Audio System/Movie Equipment*** CS-2

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$65,000  
**Original Dept. Request:** \$65,000  
**Submitted by:** Joseph Connelly  
**Department:** Community Services/DCS  
**Funding Source:** General Fund Revenue

**Project Description:**

Installation of security cameras and video surveillance equipment for the complex. Includes office monitoring equipment at the DCS/Rec office at Town Hall. Installation of an outdoor audio system and movie equipment at both Rec Park and Poms Pond

**Project Justification and Purpose:**

The security system necessary for the overall security/safety of the two facilities. Both facilities have an overwhelming amount of off hour use in which the areas are not monitored by Town personnel. On more than one occasion staff and residents have discovered vandalism, alcohol and drug paraphernalia, and evidence of inappropriate late night behavior at the facility. The intent of the security cameras is to minimize the undesirable behavior as much as possible and assist the Andover Police Department in monitoring the facility during off hours.

The audio system is necessary for both user safety and enhanced programming at both Poms Pond and at Rec Park. The system will be used for emergency information/announcements, general announcements and event management. The system will also be used to house outdoor movies in the park and at the pond. The availability of this type of equipment may also bring in increased rental revenue at both venues

**Cost Estimate & Timing:**

Total Cost \$65,000. A cost estimate was provided by Berard Systems. This project would begin as soon as funding is available. The project would be completed by the end of Fall 2017.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Annual maintenance contract estimated at 5% of installation cost or \$2,400.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$65,000	\$65,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Phillips Auditorium Tables and Chairs***

CS-3

**Department Priority Ranking: 3**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$32,214  
**Original Dept. Request:** \$32,214  
**Submitted by:** Joseph Connelly  
**Department:** Community Services/Youth  
**Funding Source:** General Fund Revenue

**Project Description:**

Purchase tables and chairs for the Phillips Room at the Cormier Youth Center

**Project Justification and Purpose:**

The Phillips Auditorium room at the Cormier Youth Center (CYC) does not have seating or tables. In order to facilitate programs, events, or meetings, staff must obtain chairs and tables from locations around Andover, which consumes significant time and resources. As the new Cormier Youth Center begins to plan programming and explore different facility use options, it is imperative that the facility start with the necessary furnishings to allow broad based programming and community special events to take place

**Cost Estimate & Timing:**

Total Cost \$64,870

A cost estimate was provided municipal vendor Shelby Williams Furniture.

Detailed Break Down:

- 20-4' tables @ \$502 each = \$10,040
- 110 chairs @ \$188 each = \$20,680
- 3 chair carts @ \$296/per = \$888
- 3 table carts @ \$202/per = \$606

This project would begin as soon as funding is available. The project would be completed by the end of Fall 2017

**Estimated Annual Cost or Savings of Operation and Maintenance**

N/A

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$32,214	\$32,214

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: *Design Services for the Park, Playstead and Municipal Complex* CS-4

**Department Priority Ranking: 4**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$75,000  
**Original Dept. Request:** \$75,000  
**Submitted by:** Joseph Connelly  
**Department:** Community Services/DCS  
**Funding Source:** General Fund Revenue

**Project Description: Design Services for the Park, Playstead, and Municipal Complex**

The process would include hiring a consultant to look at the current master plan of the facility and use that information to generate several design options and detailed cost estimates that can be used to develop a long range capital plan for the three facilities

**Project Justification and Purpose:**

In 2015 the Town of Andover Planning Division completed a detailed in house master plan of these three facilities. This process began in 2013 and involved a tremendous amount of historical fact finding, data collection, and public input. Through a citizen petition, Article 57 was passed by the 2016 Annual Town Meeting and \$120,000 was approved for the construction of a new playground on the Playstead. Prior to a playground being constructed it is necessary to see how such a facility would complement the analysis of the 2015 master plan as well as more detailed design of the entire Park, Playstead and Municipal Complex. This design process would include additional public input to generate a preferred design option. The preferred design option would then have detailed cost estimates assigned to each item and the project will be broken down into logistical phases for future capital improvement requests

**Cost Estimate & Timing:**

Total Cost \$75,000

Cost estimates for a design of this magnitude were solicited from the landscape architectural firm of Brown, Richardson and Rowe. This project would begin as soon as funding is available. The project would be completed by the end of Spring 2018

**Estimated Annual Cost or Savings of Operation and Maintenance:**

This is a one time cost and should have no additional cost on or savings on current operations and/or maintenance

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$75,000	\$75,000



TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Major Annual Road Maintenance***

DPW-1

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \$1,376,288  
**Original Dept. Request:** \$1,376,288  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** State Chapter 90 Funds

**Project Description:**

To provide major maintenance and repairs to town roads and bridges as allowed under the Chapter 90 State Aid Highway Guidelines adopted by the MA Public Works Commission including but not limited to reconstruction, resurfacing, engineering, sidewalks, traffic control or any other allowable transportation related expenses.

Actual roads that will receive treatment are determined subsequent to an annual review and evaluation by Department of Public Works personnel, approval by Massachusetts State Aid Office and coordination with water and sewer construction schedules to avoid street cuts into newly paved streets.

**Project Justification and Purpose:**

New roads have an expected life of 20 to 25 years before major maintenance is required. Costs are less the earlier this maintenance can be accomplished plus the public gains through higher property values and less wear and tear on vehicles and fewer damage claims.

**Cost Estimate & Timing:**

\$1,376,288 estimated per year at current state allocation.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

N/A

**Town Manager's Recommendation:**

The Town Manager supports department's proposed use of Chapter 90 funds for this purpose.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$1,376,288	\$1,376,288
2019	\$1,376,288	\$1,376,288
2020	\$1,376,288	\$1,376,288
2021	\$1,376,288	\$1,376,288
2022	\$1,376,288	\$1,376,288

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Minor Sidewalk Repairs***

DPW-2

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** **\$100,000**  
**Original Dept. Request:** \$100,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** General Fund Revenue

**Project Description:**

This modest amount of funding will be used to make minor safety related repairs to existing Town sidewalks, using a combination of Town forces and contractors.

**Project Justification and Purpose:**

Minor sidewalk repairs are needed in various locations to address deteriorating surfaces for pedestrian safety and accessibility purposes.

**Cost Estimate & Timing:**

\$100,000 of General Fund Revenue funding for FY18 through FY22.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$100,000	\$100,000
2019	\$100,000	\$100,000
2020	\$100,000	\$100,000
2021	\$100,000	\$100,000
2022	\$100,000	\$100,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: **Road Maintenance**

DPW-3

**Department Priority Ranking: 2**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18: \$0**  
**Original Dept. Request: \$1,000,000**  
**Submitted by: Chris Cronin, Director**  
**Department: Municipal Services**  
**Funding Source: General Fund Borrowing**

**Project Description:**

Maintenance of public roads, pave (overlay) 1 1/2" of bituminous concrete of 5 miles of road per year.

**Project Justification and Purpose:**

The Town of Andover has approximately 200 miles of road to maintain. The average life span for a properly built road is 20 years. In order to properly maintain our roadways, 10 miles of roads will need minor to major work every year to continue with a quality road. Approximately 5 miles of roadways are repaved/reconstructed per year with a combination of the following sources: private contractors, the State with Chapter 90 funding, and the Town of Andover in conjunction with water and sewer improvements. For the past 5 years, an average of 5 miles of road are deferred per year due to the lack of adequate funding. We are now potentially in a deficit of 25 miles, or more, of paving being deferred.

In order to provide some reconstruction and maintenance to our roadway system, an additional \$1,000,000 is being requested with the anticipation of a Roadway Maintenance Program being instituted going forward.

**Cost Estimate & Timing:**

\$1,000,000 is the requested funding for FY 2018 for Road Maintenance.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

**Town Manager's Recommendation:**

The Town Manager does not support funding this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$1,000,000	\$0
2019	\$1,000,000	\$0
2020	\$1,000,000	\$0
2021	\$1,000,000	\$0
2022	\$1,000,000	\$0

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Storm Water Management***

DPW-6

**Department Priority Ranking: 3**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$100,000  
**Original Dept. Request:** \$100,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** General Fund Revenue

**Project Description:**

Under the EPA National Pollutant Discharge Elimination System (NPDES) Phase II Storm Water Permit Program that was signed into law in October 1999, the Town of Andover was required to obtain a permit for our municipal storm water discharges. This required the implementation of a Storm Water Management Program (SWMP), which included a number of tasks to be accomplished to improve water quality by reducing the discharge of pollutants from storm water runoff into the local rivers, ponds, streams and other receiving water bodies. The SWMP outlined the town's plan for public education and involvement, mapping the storm drainage system, inspecting outfalls, sampling discharges, detection and elimination of illicit discharges, pollution prevention plans, management of storm water during and after land disturbance activities, and implementation of best management practices. Funds are necessary to update the SWMP to meet the new regulations for the 2<sup>nd</sup> permit term and to continue implementation of the necessary tasks.

**Project Justification and Purpose:**

In July 2003, Andover was issued a general permit for the first 5-year term for implementation of the SWMP. EPA initially issued draft regulations for the second 5-year permit in November 2010. Then EPA issued a revised draft permit in September 2014. Final regulations for new permit were issued in on April 4, 2016 which define the additional requirements.

To comply with the Federal mandate, the Town is required to further expand the activities of the existing permit under the new permit. This will enable Andover to meet the EPA requirements with the implementation of sound responsible storm water operation and maintenance practices, and help to protect the quality of our receiving waters.

The 2001, 2002 and 2003 Annual Town Meetings approved \$75,000 each year and ATM 2008 appropriated \$50,000 for continuing the program. The FY18 request is to provide the additional funding necessary to continue the implementation of the Storm Water Management Program requirements under the second 5-year permit term. At this time, \$100,000 is projected for FY 2018 – 2022, however the figure may change as the updated SWMP is developed.

The cost of any major improvements, which may result from the drainage outfall inspection and system assessment and/or storm water regulations, is yet to be determined. Funds for these improvements will be needed in future years after the locations of illicit discharges have been identified and costs have been determined.

**Cost Estimate & Timing:**

Funds have been approved in 2001, 2002 and 2003 that have allowed the initial engineering study of the Town's facilities, operational procedures and regulations relative to the EPA requirements and for the preparation of the Storm Water Management Plan. These funds have also enabled for the implementation of the recommendations and improvements in SWMP such as installing gas/oil separators at four town buildings, necessary engineering services for outfall inspections and storm drain mapping, preparation of

a storm water bylaw, and eliminating four illicit discharges that were found, and preparation of the annual report to EPA. Funds will be necessary to continue and expand the permit requirements including engineering services, system mapping, dry and wet weather sampling, annual reports, detection and elimination of illicit discharges, implementation of Good Housekeeping maintenance activities at town facilities and other necessary services, equipment and improvements. Recent drain outfall inspections have detected several locations of possible illicit connections, which are under investigation and will need to be corrected and eliminated. Funds for the construction and implementation of the storm water management program will be necessary to address other problems that are identified as the evaluation and assessment of the town's drainage system progresses. Major improvements may be needed at some point in the future. The cost of such major improvements has yet to be determined.

<b>Estimated Annual Cost or Savings of Operation and Maintenance:</b>
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There will be additional operational costs associated with the implementation of the program. These costs will not be known until the evaluation and assessment of the town's drainage system is completed.

<b>Town Manager's Recommendation:</b>
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The Town Manager supports funding this request for FY18 – FY22.

<b>Fiscal Year</b>	<b>Dept. Request/Proposed</b>	<b>TM Recommended/Plan</b>
<b>2018</b>	\$100,000	\$100,000
<b>2019</b>	\$100,000	\$100,000
<b>2020</b>	\$100,000	\$100,000
<b>2021</b>	\$100,000	\$100,000
<b>2022</b>	\$100,000	\$100,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: **Highway Vehicles**

DPW-7

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** a. \$215,000 b. \$450,000  
**Dept. Request:** a. \$215,000 b. \$450,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** a. General Fund Revenue  
b. General Fund Borrowing

Dept.	Vehicle #	Year	Make/Model	FY18	FY19	FY20	FY21	FY22
Cemetery	65	2006	Chevy Silverado 1 Ton Dump			28,000		
Cemetery	66	2003	Ford F350 Dump 1 Ton 4X4 (Dump body Only)					28,000
Cemetery	67	2000	John Deere Backhoe Loader 310E		75,000			
Cemetery	Trailer-1	1996	Vermeer Brush Chipper (SPARE)					
Park	60	2009	Ford F350 Dump 4x2			40,000		
Park	61	2006	Ford F350 1 Ton Dump 4x4			40,000		
Park	62	2006	Ford F350 1 Ton Rack Body w/tailgate 4x2, (Body with power tailgate only to be replaced)					
Park	63	2001	Ford F350 1 Ton Dump		35,000			
Park	64	2016	Ford F250, supercab					
Park	65	2015	Jacobsen JMC, HR9016T mower					75,000
Park	66	2012	Toro Ground Master 4700-D Mower 4x4				65,000	
Park	Tractor-1	1999	Kubota Tractor – Diesel	50,000				
Tree	20	2010	Ford F150 4x4 (supt's)			28,000		
Tree	22	2002	Chevy C1500 4x4 Pickup (trade in with #53)					
Tree	51	2012	Ford F550 2T FSH DRW w chip body				65,000	
Tree	52	1997	Mack Crane Platform - Diesel					
Tree	53	1992	GMC Topkick Flatbed Truck – Diesel		110,000			
Tree	54	1999	GMC C Series Bucket Truck - Diesel				125,000	
Tree	55	2006	Kubota Tractor				30,000	
Tree	56	2004	Vermeer Stump Grinder		25,000			
Tree	57	2000	Brush Bandit Chipper 254XP Utility Trailer	50,000				
			<b>Cemetery, Parks, Forestry Total Request</b>	<b>100,000</b>	<b>245,000</b>	<b>136,000</b>	<b>285,000</b>	<b>103,000</b>
Highway	1	2012	Mack Dump Truck w/2 CaCl Tanks (6wh)					
Highway	3	2012	Mack Dump Truck w/2 CaCl Tanks (6wh)					
Highway	4	2009	Mack Dump Truck w/2 CaCl Tanks (6wh)				180,000	
Highway	5	2006	Mack Dump Truck w/2 CaCl Tanks (6wh)			170,000		
Highway	6	2009	Mack RD Dump Truck w/2 CaCl Tanks(6wh)				180,000	
Highway	7	2003	Mack RD690P Dump Truck w /Catchbasin Cleaner (6wh)	200,000				
Highway	8	2012	Mack Dump Truck w/2 CaCl Tanks (6wh)					200,000
Highway	9	2005	Mack RD690 Dump Truck w/2 CaCl Tanks w/Snow Setup (10wh)		175,000			
Highway	10	2015	Mack RD 690P Dump Truck w/2 CACI Tanks (6wh)					
Highway	11	2013	Mack RD DumpTruck w/2 CACI Tanks (6wh)					
Highway	12	2013	Caterpillar Wheel Loader Model 938G					
Highway	13	2008	John Deere 624J Four Wheel Loader			180,000		



Dept.	Vehicle #	Year	Make/Model	FY18	FY19	FY20	FY21	FY22
Highway	14	2017	Ford F450, 4x4 w/Plow					
Highway	15	2009	Ford F450 1 Ton 4x4 1 ton w/ plow	55,000				
Highway	16	2011	Ford F450 1 Ton Supercab F47 Chassis Rack w/Plow - (new body & tailgate in FY16)					
Highway	17	2015	Ford Drwsup F450 1 Ton Dump Truck					
Highway	18	2010	Ford F150 1/2 Ton X18 139 Supercab 4x4 Pickup				45,000	
Highway	19	2009	Ford Escape, 4x4					
Highway	20	2017	Ford F550, 4x4 w/ plow					
Highway	21	2002	Mack RD690P Dump Truck w/2 CACI Tanks (6wh)		170,000			
Highway	22	2001	Mack 10-Wheeler w/2 CACI Tanks (10wh)					
Highway	23	2001	Mack 10-Wheeler w/2 CACI Tanks (10wh)					
Highway	24	2013	Ford F350, 1 Ton Regular cab 4X4 Pickup					
Highway	25	2008	Ford F450 1 Ton w/ crane & dumping body platform (NEEDS CAB & CHASSIS)	60,000				
Highway	26	2015	Bobcat Skidsteer 773T Loader					
Highway	27	2016	Bobcat Skidsteer S570 Loader					
Highway	28	2015	Holder Tractor C992 w/attachments					
Highway	29	2016	Holder Tractor C992 w/attachments					
Engineering	39	2013	Ford F350					
Highway	400	2000	John Deere Backhoe Loader 310SE	130,000				
Highway	51	2013	Wacker Neuson WL-30 Articulated Wheel Loader					
Highway	52	2015	Falcon Asphalt Recycler & Hot Box, Trailer Mounted					
Highway	A	2013	Compaq Riding Roller					
Highway	BOMB	2007	Sidewalk Tractor Bomb. w / "V" Plow	120,000				
Highway	B-Sweep	2013	3 Wheel Elgin Pelican Sweeper			200,000		
Highway	C-Sweep	2015	3 Wheel Elgin Pelican Sweeper					200,000
Highway	D	2013	2013 Sullair 185CFM Air Compressor, 100psi		14,000			
Highway	E	1987	SRECO Utility Trailer Water					
Highway	SALPAV	2014	Salsco TP44 Sidewalk Track Paver					
Highway	Trailer 2	2004	Big Tex 12-Ton Tandem Axle Trailer		10,000			
Highway	Trailer 3	2002	Town Master T-12DD Utility Trailer for Bobcats		10,000			
Muni Svcs	WZT	2014	Work Zone Trailer, Car Mate					
			<b>Highway Total Request</b>	<b>565,000</b>	<b>379,000</b>	<b>550,000</b>	<b>405,000</b>	<b>400,000</b>
			<b>TOTAL DPW</b>	<b>665,000</b>	<b>624,000</b>	<b>686,000</b>	<b>690,000</b>	<b>503,000</b>

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
<b>2018</b>	\$665,000	\$215,000/\$450,000
<b>2019</b>	\$624,000	\$169,000/\$455,000
<b>2020</b>	\$686,000	\$136,000/\$550,000
<b>2021</b>	\$690,000	\$205,000/\$485,000
<b>2022</b>	\$503,000	\$103,000/\$400,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018– FY2022

PROJECT REQUEST: ***Minor Storm Drainage Improvements***

DPW-8

**Department Priority Ranking:**

*(1 = highest, 2 = second highest, etc.)*

**TM's Rec. for FY18:**

**Original Dept. Request:**

\$ (starts in FY19)

**Submitted by:**

Chris Cronin, Director

**Department:**

Municipal Services

**Funding Source:**

General Fund Borrowing

**Project Description:**

This project is to provide funds to address maintenance and repairs of storm drains. The specific locations to be addressed will be determined by the DPW Director and staff.

**Project Justification and Purpose:**

To prevent further roadway deterioration, property damage, alleviate flooding, and reduce the discharge of pollutants from storm water runoff. Town Meeting has been appropriating \$300,000 every other year for storm drain improvements. This request continues to provide the funds for making improvements and repairs as they become necessary.

**Cost Estimate & Timing:**

Projects will be done as necessary by private contractors at Town bid prices. The 2015 Annual Town Meeting approved \$300,000 which funded our latest request. These funds will be expended by the end of FY 2018.

This request continues the funding of \$300,000 for Minor Improvements.

The estimated total cost for all years shown is - \$600,000.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

There will be some additional operational costs associated with catch basin cleaning and repair.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY19 and FY21.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018		
2019	\$300,000	\$300,000
2020		
2021	\$300,000	\$300,000
2022		

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Town Bridge Evaluation & Maintenance***

DPW-9

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:**  
**Original Dept. Request:** \$ (starts in FY20)  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** General Fund Borrowing

**Project Description:**

To provide for minor repairs, rehabilitation, and reconstruction of Town-owned bridges according to Massachusetts Department of Transportation specifications. The MassDOT routinely inspects the Town owned bridges and issues reports citing any deficiencies in the bridge structures. There is an ongoing need to rehab bridge abutments, place scour protection and make other repairs as necessary for the following town owned bridges on the Shawsheen River: Essex Street Bridge; Andover Street Bridge; Stevens Street Bridge; Balmoral Street Bridge; and Central Street Bridge. An engineering evaluation is necessary to identify, recommend and design mitigation methods and rehab alternatives.

**Project Justification and Purpose:**

Improvements were made in 2009 and 2010 to the Balmoral Street and Stevens Street Bridges to address deficiencies that were previously detected. Future requests will continue to help fund necessary assessments and repairs to the Town owned bridges. Recent reports from MassDOT indicate minor deficiencies on each bridge. Inspections have been performed on the Essex Street and Central Street bridges. A further evaluation on the Essex Street Bridge has determined the stone arch is stable and repairs are not necessary at this time. Conditions will be monitored on all Town owned bridges and repairs made as needed in the future.

**Cost Estimate & Timing:**

Amount to be determined includes engineering, design and construction to repair identified deficiencies as needed. Evaluations, repairs and rehabilitation will be determined and additional funds requested in future years as necessary to supplement available funds remaining. Funding options for major repairs will also be sought through available state bridge programs.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

N/A

**Town Manager's Recommendation:**

The Town Manager supports this request for FY20.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018		
2019		
2020	\$500,000	\$500,000
2021		
2022		

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Reconstruction of Existing Sidewalks***

DPW-10

**Department Priority Ranking: 2**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \$0  
**Dept. Request:** \$1,109,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** General Fund Borrowing

**Project Description:**

The Town Manager and the Board of Selectmen formalized a Sidewalk Master Plan in 2001, which establishes guidelines for the construction and reconstruction of sidewalks. The Plan also sets priorities, provides for public input on design issues, and programs construction timing based on a number of factors, including the availability of funds. The plan calls for the reconstruction of existing sidewalks with granite curbing especially in the downtown area. Town sidewalks need to conform to the American with Disabilities Act requirements especially regarding curb cuts, width, slope, etc. Disabled people use sidewalks in the downtown area and the old sidewalks need to be repaired as soon as possible. Sidewalks near the schools and in the Shawsheen and Ballardvale areas are also in need of repairs to provide safe pedestrian travel.

**Project Justification and Purpose:**

The Town has over fifty (50) miles of existing sidewalks. Many of the sidewalks are old, broken, cracked or uneven and in need of serious repair or lack granite curbing. Also many of the sidewalks do not conform to the ADA requirements. Approximately 23 miles are in need of reconstruction. Major funding for sidewalks has been deferred in past years as part of an overall reallocation of capital appropriations towards maintaining School and Town services. Funds for full reconstruction have not been allocated since 2006. In the Spring of 2004 Andover conducted a Citizens Survey of a representative sampling of town residents to assess the level of community satisfaction with a wide variety of Town services. Sidewalk maintenance received one of the lowest ratings of the 55 areas rated.

**Cost Estimate & Timing:**

Reconstruction costs have increased based upon current construction costs. The cost estimate to reconstruct all 23 miles of remaining sidewalks in Andover is \$18,781,000. Costs include removing existing sidewalk, installing new sidewalk, granite curb, trees and handicap ramps. Following is the itemized cost to follow the Sidewalk Master Plan:

<u>Street Name</u>	<u>Street Section</u>	<u>Estimated Replacement</u>
<b><u>FY2018</u></b>		
Canterbury Street	Lowell Street to Stafford Lane	378,000
Central Street	Essex Street to Brook Street	138,000
North Main Street	Windsor Street to Kenilworth Street	261,000
	Kensington Street to Magnolia	
Poor Street	Avenue	137,000
	Kenilworth Street to Haverhill	
Riverina Road	Street	195,000
		<hr/>
		\$1,109,000

**FY2019**

Argyle Street	Haverhill Street to Burnham Road	303,000
Arundel Street	Balmoral Street to Burnham Road	326,000
Balmoral Street	North Main Street to end	547,000
Carisbrooke Street	Burnham Road to Balmoral Street	282,000
York Street	Burnham Road to Haverhill Street	302,000
		<hr/>
		\$1,760,000

**FY2020**

Ballardvale Road	Enfield Drive to Wyncrest Circle	70,000
School Street	Ridge Street to Central Street	128,000
Summer Street	Avon Street to Whittier Street	311,000
		<hr/>
		\$509,000

**FY2021**

Essex Street	Red Spring Road to Central Street	510,000
Florence Street	Elm Street to Park Street	180,000
Kenilworth Street	North Main Street to Poor Street	108,000
Wolcott Avenue	Walnut Avenue to Elm Street	367,000
		<hr/>
		\$1,165,000

**FY2022**

Brook Street	Essex Street to Central Street	210,000
Burnham Road	High Street to Dufton Road	156,000
Chestnut Street	Morton Street to Sherry Dr	173,000
Pearson Street	Essex Street to Safety Center	120,000
		<hr/>
		\$659,000

**Total                    \$5,202,000**

<b>Estimated Annual Cost or Savings of Operation and Maintenance:</b>
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Project to be done by private contractors.

<b>Town Manager's Recommendation:</b>
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The Town Manager does not support funding this request at this time.

<b>Fiscal Year</b>	<b>Dept. Request/Proposed</b>	<b>TM Recommended/Plan</b>
<b>2018</b>	\$1,109,000	\$0
<b>2019</b>	\$1,760,000	\$0
<b>2020</b>	\$509,000	\$0
<b>2021</b>	\$1,165,000	\$0
<b>2022</b>	\$659,000	\$0

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***New Sidewalk Construction***

DPW-11

**Department Priority Ranking: 2**  
(1 = highest, 2 = next highest, etc.)

**TM Rec for FY18: \$0**  
**Original Dept. Request: \$1,032,000**  
**Submitted by: Chris Cronin, Director**  
**Department: Municipal Services**  
**Funding Source: General Fund Borrowing**

**Project Description:**

The Town Manager and the Board of Selectmen formalized a Sidewalk Master Plan in 2001, which establishes guidelines for the construction and reconstruction of sidewalks. The Plan also sets priorities, provides for public input on design issues, and programs construction timing based on a number of factors, including the availability of funds. This request shows the five-year plan for construction of new sidewalks in accordance with the priorities established by the Sidewalk Master Plan. The Sidewalk Master Plan gives priority to constructing sidewalks on at least one side of many streets within one mile of a school or other municipal facility, which generates heavy pedestrian traffic. It is estimated that this would entail the construction of twenty-one (21) miles of new sidewalks. Final locations will be determined by the School Department, Planning Department and the Department of Public Works.

**Project Justification and Purpose:**

Major funding for sidewalks has been deferred in past fiscal years as part of an overall reallocation of capital appropriations towards maintaining School and Town services, until 2014 when funds were approved for a new sidewalk on a portion of Holt Road and in 2015 when portions of Woburn St. and River St. were approved.

<u>Street Name</u>	<u>Street Section</u>	<u>Estimated Cost</u>
<b><u>FY2018</u></b>		
High Plain Rd.	West Elementary to Greenwood Rd.	1,032,000
		<u>\$1,032,000</u>
<b><u>FY2019</u></b>		
Woburn St.	Abbot St. to Bayberry Ln.	196,000
High St.	Haverhill St. to house #128	803,000
		<u>\$999,000</u>
<b><u>FY2020</u></b>		
Dascomb Rd.	Andover St. to Clark Rd.	746,000
Woburn St.	Enfield Dr. to Rattlesnake Hill Rd.	987,000
		<u>\$1,733,000</u>
<b><u>FY2021</u></b>		
Abbot St.	Spring Grove Rd to Woburn St.	613,000
Lincoln St.	Cindy Ln. to Lowell St.	109,000
		<u>\$722,000</u>
<b><u>FY2022</u></b>		
Andover St.	Hall Ave. to Central St.	1,444,000
Greenwood Rd.	Lowell St. to Gleason St.	997,000
		<u>\$2,441,000</u>

**Cost Estimate & Timing:**

The projected costs are estimated on a base figure of \$113/ft., which includes new bituminous concrete sidewalks, granite curbs, and trees. Additional items such as engineering, police, retaining walls, guardrail and drainage structures, where necessary at each location, are also included in the total costs.

**Long-term:**

The cost estimated to construct twenty-one (21) miles of new sidewalk is approximately \$12,530,000 which includes new bituminous concrete sidewalks, granite curbs, and trees. Additional items such as; engineering costs, police details or other necessary items such as retaining walls, guardrail, and drainage structures must be added to this total, where required.

Construction completed 1 year after approval with funds from General Fund borrowing.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

N/A

**Town Manager's Recommendation:**

The Town Manager does not support funding this request at this time.

<b>Fiscal Year</b>	<b>Dept. Request/Proposed</b>	<b>TM Recommended/Plan</b>
<b>2018</b>	\$1,032,000	\$0
<b>2019</b>	\$999,000	\$0
<b>2020</b>	\$1,733,000	\$0
<b>2021</b>	\$722,000	\$0
<b>2022</b>	\$2,441,000	\$0

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: **Water & Sewer Vehicles**

DPW-12

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18: \$100,000**  
**Dept. Request: \$100,000**  
**Submitted by: Chris Cronin, Director**  
**Department: Municipal Services**  
**Funding Source: Water Reserves**

Dept.	Vehicle #	Year	Make/Model	FY18	FY19	FY20	FY21	FY22
Water	30	2005	Ford F150 4x4 Pickup w/Ext Cab (G F's)		35,000			
Water	31	2015	Ford F350 1 Ton F37 CABCA Pick w/Crane					
Sewer	32	2012	Ford F350 1 Ton F31 Dump PU Truck w/Plow					40,000
Sewer	33	2012	Ford F350 1 Ton F31 Pickup w/Plow					40,000
Water	34	2005	Mack 10-Wheel Dump Truck w / Snow Setup			175,000		
Water	35	2015	Ford F350					
Water	36	2016	Ford Transit 150					
Water	40	2007	John Deere 410J Backhoe				200,000	
Water	41	2016	Ford Escape AWD					
Water	42	2015	Ford F550 1 Ton 4x4 Dump & Plow					
Water	47	2005	Ford F150 4x4 Pickup w / Ext Cab					
Water	B	2013	Gorman Rup Pump (6")					
Water	C	2013	Gorman Rup Pump (6")					
Water	NEED #	2007	Terex Light Tower/6FW Gen.. SNL GYF20083, Model RLA 060D1-4UH		15,000			
Water	70	2013	Infrastructure Maintenance Vehicle					
Water	Trailer-6	2007	Big Tezx Utility Trailer 30SA8 - black		12,000			
Water	WS- 1	1997	Trailer Utility Sedan	15,000				
Water	WS- 2	2003	Haulmark K714BT Kodiak Enclosed Trailer		13,000			
Water	WS- 3	2000	Seca Utility Trailer for Water Jet Flusher		13,000			
Water	WS- 4	2001	Am Utility Trailer for Solar Powered Changeable Message Signs	10,000				
Water	WS- 5	2001	Am Utility Trailer for Solar Powered Changeable Message Signs	10,000				
Water	WS-A	2000	SRECO Utility Trailer co Sewer Main Cleaner			38,000		
Water	WS-B	2010	D210PHJD Compressor, weight 2700#					
Water	WS-C	2000	Vactron U-Dump Flat Trailer 512F	65,000				
			(No PM, Trailer services by Water Shop)					

WTP	2	2006	Ford Escape Hybrid AWD					
WTP	37	2009	Ford F150 1/2 Ton Pick X18			30,000		
WTP	38	2013	Ford F250 1/2 Ton Pickup F18 4X4 139 Regular Cab Styleside					
WTP	43	2016	Ford Transit 350					
WTP	44	2015	Ford F150					
WTP	45	2016	Ford F250, Supercab					
WTP	48	2006	Ford Escape AWD		35,000			
WTP	49	2006	Ford Escape AWD		35,000			
WTP	50	2006	Ford F350 1 ton pickup w/ Crane				45,000	



WTP	46	2005	Ford F150 4x4 Pickup			30,000		
WTP	A-GEN	1977	Onan Generator (Unleaded)					
WTP	T1	2000	Trailer for Airman SDG45 Generator					
			<b>Water/Water Treatment Total Request</b>	<b>100,000</b>	<b>158,000</b>	<b>273,000</b>	<b>245,000</b>	<b>80,000</b>

**Estimated Annual Cost or Savings of Operation and Maintenance:**

N/A

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

<b>Fiscal Year</b>	<b>Dept. Requested/Proposed</b>	<b>TM Recommended/Plan</b>
<b>2018</b>	\$100,000	\$100,000
<b>2019</b>	\$158,000	\$158,000
<b>2020</b>	\$273,000	\$273,000
<b>2021</b>	\$245,000	\$245,000
<b>2022</b>	\$80,000	\$80,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Filter Backwash Discharge Tank***

DPW-13

**Department Priority Ranking: 3**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:**

**Dept. Request:** \$ (see FY21)

**Submitted by:** Chris Cronin, Director

**Department:** Municipal Services

**Funding Source:** Water Enterprise Borrowing

**Project Description:**

Design, engineering, permitting and construction management for a new Filter Backwash Discharge Storage/Equalization Tank to hold filter backwash water until it can be bled back into the treatment train at the raw water intake.

**Project Justification and Purpose:**

EPA did not renew the General Discharge Permit for the Water Treatment Plant and is expected to deny the permit and require an alternative method for the backwash water treatment and disposal. The National Pollutant Discharge Elimination System (NPDES) Potable Water Treatment Facility General Permit (PWTF GP) expired in 2009. Andover filed a Notice of Availability (NOA) to be covered under the new PWTF GP. Andover may not be covered under the PWTF GP because aluminum levels in the discharge might exceed the National Recommended Water Quality Criteria in Haggetts Pond. The EPA is working with USGS to determine mixing zones for WTF that discharge to ponds. A storage/equalization tank can be located on-site at the WTF to hold filter backwash water until it can be bled back into the treatment train at the raw water intake. The use of alum can be replaced with more complex forms of aluminum-based coagulants. These chemicals are more effective; however, they are typically more expensive than alum. The substitution might have adverse impacts on the water quality so the transition would need to be closely monitored. Discharging to lagoons is similar to the use of sedimentation basins. However, retention times are longer and water would generally flow directly to Haggetts Pond instead of the raw water intake of the WTF. Additionally, lagoons would have to be cleaned periodically using equipment such as a front end loader. Solids would have to be trucked off-site to a disposal facility. Space is also limited at the site, potentially making lagoons impossible to build. Other treatment options not listed here would likely be too expensive to be feasible.

**Cost Estimate & Timing:**

\$300,000 for engineering and approvals was approved at ATM 2012.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

**Town Manager's Recommendation:**

Projected future department need for FY2021.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018		
2019		
2020		
2021	\$4,500,000	\$4,500,000
2022		

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: **Major Water Main Replacement/**

DPW-14

**Distribution Improvements Project**

**Department Priority Ranking: 1**

*(1 = highest, 2 = second highest, etc.)*

**TM's Rec. for FY18: \$3,000,000**

**Original Dept. Request: \$3,000,000**

**Submitted by:** Christopher Cronin, Director

**Department:** Municipal Services

**Funding Source:** Water Enterprise Borrowing

**Project Description:**

Replacement of cast iron water mains, water mains identified within the Distribution Study, and water mains identified to have historical issues. The project will also include the replacement, rehabilitation and abandonment of existing water mains (parallel Mains).

Cleaning and lining on section of unlined cast iron water mains that are of adequate size and replacement of appurtenances as identified by the Water Superintendent and Engineers.

**Project Justification and Purpose:**

A significant portion of the Town's Water distribution system consists of unlined cast iron water mains that have reduced hydraulic capacity (firefighting), and water quality issues due to mineral deposits. Water enterprise funding /borrowing would be used to replace, rehabilitate and abandon water mains. This will help to prevent catastrophic failures, improve capacity and water quality, prevent water loss within the system, and provide adequate fire protection.

In an effort to ensure a reliable and also a system with sufficient capacity within the water distribution system The Water distribution study and analysis has identified that areas of the Town Water infrastructure consists of deficient water mains. These main have reduced hydraulic capacity due to size, age, pipe material and historical structural issues. Town officials have identified areas throughout the Town's system that are in need of water main replacement for reasons such as but not limited to hydraulic capacity and historical structural issues. A number of locations within the system have parallel water mains, these mains are typically unlined cast iron mains which have limited capacity, and these locations require services and fire hydrants to be switched over to the new main prior to the abandonment of the older main.

The Town's Water Division conducts annual infrastructure improvements to properly maintain and upgrade The Town's aging water distribution system. This program helps to prevent catastrophic failures, improve capacity, prevent water loss, provide adequate fire protection and improve overall water quality.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$3,000,000	\$3,000,000
2019	\$3,000,000	\$3,000,000
2020	\$3,000,000	\$3,000,000
2021	\$3,000,000	\$3,000,000
2022	\$3,000,000	\$3,000,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***WTP Parking Area Reconstruction***

DPW-16

**Department Priority Ranking: 3**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY 18:** \$  
**Dept. Request:** (starts in FY19)  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** Water Enterprise Reserves

**Project Description:**

Reconstruction of rear parking areas at the Water Treatment Plant inclusive of pavement, curbing, and castings.

**Project Justification and Purpose:**

Due to various construction projects at the WTP over the years, the parking and access areas require reclamation, grading, casting adjustment, curbing adjustment, and repaving.

Project Estimates:      Back and side lots/drives of WTP      \$110,000

**Cost Estimate:**

Estimate was provided using recent project costs engineering data, means data, as well as current materials bid prices. Engineering and oversight of this project will be done in-house.

**Estimated Annual Cost of Operation and Maintenance:**

N/A

**Timing and Financing:**

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY19.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018		
2019	\$110,000	\$110,000
2020		
2021		
2022		

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Hydrant Replacement Program***

DPW-17

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$100,000  
**Original Dept. Request:** \$100,000  
**Submitted by:** Christopher Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** Water Enterprise Reserves

**Project Description:**

Continuation of the hydrant replacement program from previous years.

**Project Justification and Purpose:**

Older fire hydrants within the Water Distribution system were identified during the comprehensive hydrant inventory and inspection. The continuation of the program will replace the remaining older fire hydrants to ensure reliability.

**Cost Estimate & Timing:**

\$100,000 from water enterprise reserves

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Annual maintenance cost associated with this program will be included in the budget

**Town Manager's Recommendation:**

The Town Manager supports this funding request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$100,000	\$100,000
2019	\$100,000	\$100,000
2020	\$100,000	\$100,000
2021	\$100,000	\$100,000
2022	\$100,000	\$100,000



TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***WTP Electrical Sub-stations Replacement***

DPW-21

**Department Priority Ranking:**

*(1 = highest, 2 = second highest, etc.)*

**TM's Rec. for FY18: \$500,000**

**Original Dept. Request: \$500,000**

**Submitted by:** Chris Cronin, Director

**Department:** Municipal Services

**Funding Source:** Water Enterprise Borrowing

**Project Description:**

Replace electrical sub-station A at WTP, upgrade sub-station B to complete redundant feed, and install new 3-phase 4160 volt feed to sub B. Sub-station A is 1973 equipment and was not replaced in 1988 with WTP upgrades. Sub-station B was replaced in 1988.

**Project Justification and Purpose:**

Sub- station A is the main electrical feed for the WTP. At 40 years old, the availability of OEM parts replacement is an issue. It is also the only infrastructure at the WTP that is a single point of failure, with no redundancy. By also upgrading Sub B and installing a second feed from the utility, the consequence of failure in Sub A, would be eliminated. The 2011 Drinking Water Infrastructure Needs Survey and Assessment (DWINSA) recommends this project.

**Cost Estimate & Timing:**

\$500,000 in FY18 for design, specs, and bid services. \$2,500,000 in FY 19 for construction of sub-B and \$2,500,000 in FY 20 sub-A.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY20.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$500,000	\$500,000
2019	\$2,500,000	\$2,500,000
2020	\$2,500,000	\$2,500,000
2021		
2022		

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST:

***WTP – Bancroft High Lift Pumps***

**DPW-22**

**Department Priority Ranking:**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** **\$750,000**  
**Original Dept. Request:** \$750,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Water  
**Funding Source:** Water Enterprise Borrowing

**Project Description:**

Replace Bancroft dual speed, 300/600 horsepower, 4160 volt high lift pumps which are approaching 30 year life expectancy. These pumps distribute water from the plant to the Central Los distribution system.

**Project Justification and Purpose:**

Replacing current 30 year old system will offer greater operational efficiencies between low winter demand and high summer production rates. OEM spare part availability for current system is becoming problematic due to its age. This is the last phase of upgrading all Water Treatment Plant high lift pumping equipment.

**Cost Estimate and Timing:**

\$750, 000 will cover engineering, design, equipment purchase, installation, and startup services.

**Estimated Annual Cost of Operation and Maintenance:**

Maintenance costs in first 5 years is negligible.

**Town Manager's Recommendation:**

The Town Manager supports this funding request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$750,000	\$750,000



TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Minor Sanitary Sewer Collection System Improvements*** DPW-24

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$50,000  
**Original Dept. Request:** \$50,000  
**Submitted by:** Christopher Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** Sewer Enterprise Reserves

**Project Description:**

Minor repairs to the sanitary sewer are necessary to ensure that the collection system is operating correctly. Repairs will include but not limited to Sewer manhole installation, replacement and repair. Minor defective pipe repair to eliminate I/I sources

**Project Justification and Purpose:**

With the aging of the Sanitary Sewer Collection System dating as far back as 1898, repairs are necessary to ensure the integrity of the collection system and to eliminate I/I sources

**Cost Estimate & Timing:**

\$50,000 from Sewer Enterprise reserves

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Annual cost associated with this program will be included in the budget

**Town Manager's Recommendation:**

The Town Manager supports this funding request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$50,000	\$50,000
2019	\$50,000	\$50,000
2020	\$50,000	\$50,000
2021	\$50,000	\$50,000
2022	\$50,000	\$500,00

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Enmore Street Reconstruction***

DPW-25

**Department Priority Ranking:**  
(1 = highest, 2 = next highest, etc.)

**TM Rec for FY18:** \$1,230,000  
**Original Dept. Request:** \$1,230,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** Various

**Project Description:**

To provide major maintenance and repairs to town water lines, sewer lines, sidewalks, street trees and resurfacing of Enmore Street, including engineering, police details and related expenses.

**Project Justification and Purpose:**

The water and sewer lines are in need of major repairs and the road and sidewalks are in poor condition.

**Cost Estimate & Timing:**

**The projected costs are estimated to be:**

Water improvements	\$50,000	<b>Funding</b> Water Reserves
Sewer improvements	\$525,000	Sewer Re-purpose
Sidewalk reconstruction	\$278,000	G.F. Borrowing
Resurfacing	\$102,000	G.F. Borrowing
Additional items such as engineering, police details	\$275,000	G.F. Borrowing
<b>TOTAL</b>	<b>\$1,230,000</b>	

**Estimated Annual Cost or Savings of Operation and Maintenance:**

N/A

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$1,230,000	\$1,230,000
2019		
2020		
2021		
2022		

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY20212

PROJECT REQUEST: ***Water Treatment Plant - New Heating System***

DPW-27

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \$300,000  
**Original Dept. Request:** \$300,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Sources:** Water Enterprise Borrowing

**Project Description:**

In CIP FY2018, funds are requested for the design and installation of a new heating system for the Water Treatment Plant.

**Project Justification and Purpose:**

The Water Treatment Plant heating system is 42 years old and is in “very poor condition” according to our MIIA inspection in March, 2015. The heating and HVAC systems are well beyond their useful life and replacement can no longer be avoided. The HVAC system must be brought up to current standards. The systems will be replaced with two steam boilers and piping and a new air handling system. All efforts are being made to reuse existing equipment and ductwork as feasible.

**Cost Estimate:**

\$300,000

**Estimated Annual Cost of Operation and Maintenance:**

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$300,000	\$300,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: *Spring Grove Cemetery Maintenance*

DPW-28

**Department Priority Ranking: 2**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18: \$20,000**  
**Original Dept. Request: \$20,000**  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** General Fund Revenue

<b>Project Description:</b>
-----------------------------

	Priority	FY2018	FY2019	FY2020	FY2021	FY2022
General maintenance and Cemetery Improvements, including expansion of grave sites, software upgrades and roadway paving.	1	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
<b>Totals</b>		<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>

<b>Project Justification and Purpose:</b>
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General Maintenance – In addition to the expansion of grave sites, funds are used for cemetery maintenance such as grinding and screening of the loam pile, removal of hazard trees, repairs to the stone wall along Abbot Street, and for maintenance and upgrades to the cemetery GIS software.

Cemetery Improvements – Funds were appropriated in FY16 and FY17 and an inclusive plan for road repair, drainage work and other improvements at Spring Grove Cemetery are being finalized for work to be completed in Fall 2016 or Spring 2017 .

<b>Town Manager's Recommendation:</b>
---------------------------------------

The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
<b>2018</b>	\$20,000	\$20,000
<b>2019</b>	\$20,000	\$20,000
<b>2020</b>	\$20,000	\$20,000
<b>2021</b>	\$20,000	\$20,000
<b>2022</b>	\$20,000	\$20,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Fish Brook Pump Station***

**DPW-29**

**Department Priority Ranking:**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \$  
**Original Dept. Request:** (starts in 2022)  
**Submitted by:** Christopher Cronin Director  
**Department:** Water  
**Funding Source:** Water Enterprise Borrowing

**Project Description:**

Replace Fish Brook Pump Station

**Project Justification and Purpose:**

**Cost Estimate:**

**Estimated Annual Cost of Operation and Maintenance:**

**Town Manager's Recommendation:**

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018		
2019		
2020		
2021		
2022	\$15,000,000	\$15,000,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***MUNIS Financial Software Improvements***

FIN-1

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$35,000  
**Original Dept. Request:** \$35,000  
**Submitted by:** Donna M. Walsh  
**Department:** Finance  
**Funding Source:** General Fund Revenue

**Project Description:**

This request continues the implementation of additional MUNIS modules that was started in FY12. Many modules have been implemented and some are in progress. This request will fund the purchase and implementation of MUNIS Employee Self Service and Tyler Content Manager as well as on-going MUNIS consulting.

**Project Justification and Purpose:**

A fully integrated financial system should be a priority when feasible. In FY17 a CIP request was funded in the amount of \$35,000 to replace the Town/School's current Applicant Tracking Software – Talent ED - with MUNIS Applicant Tracking and to implement Tyler Citizen Transparency. The Town/School have selected another vendor for the applicant tracking software (NEOGOV) so the FY17 funding for Applicant Tracking is requested to be applied to another MUNIS application – Employee Self Service (ESS). This software gives employees access to sick and vacation history, allows employees to request time-off which the supervisory can approve electronically and allows employees to easily make changes to personal information. The software also stores information such as W-4 and historical W-2's. Lastly ESS allows for a more seamless health insurance open enrollment process. In FY18 funds are requested for the implementation of Tyler Content Manager. This software acts as an "electronic" filing cabinet allowing users to scan and attach financial documents in MUNIS. This makes accessing information much quicker and begins to eliminate bulky files that have to be available in offices for years. Future year's request of \$15,000 will be used to continue to stay current on MUNIS and be used for training and consulting when needed.

**Cost Estimate & Timing:**

MUNIS Employee Self Service - \$30,000 License and Implementation (Repurpose from FY17 CIP)  
Tyler Content Manager - \$60,000 License and Implementation

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Annual support for ESS is \$6,000, Annual support for TCM is \$8,100

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$35,000	\$35,000
2019	\$15,000	\$15,000
2020	\$15,000	\$15,000
2022	\$15,000	\$15,000
2021	\$15,000	\$15,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2021

**PROJECT REQUEST: FIRE RESCUE VEHICLES**

FR-1

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec.:** \$323,000  
**Original Dept. Request:** \$323,000  
**Submitted by:** Chief M. Mansfield  
**Department:** Fire Rescue  
**Funding Source:** General Fund  
Revenue/Borrowing

<b>Project Description:</b>
-----------------------------

Replace the following vehicles:

**FY18**

2008 International 400 SER Ambulance 2  
2008 Chevrolet Tahoe Car 4

**FY19**

2009 International 400 SER Ambulance 4  
2004 Ford Pick-up – Forestry 2

**FY20**

1999 KME Tower Ladder – Ladder 2

**FY21**

2001 Kovatch Motor Equipment Excel - Engine 2  
2011 Chevrolet Tahoe - Car 3

**FY22**

2011 International 4300 Ambulance – Ambulance 3

<b>Project Justification and Purpose:</b>
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**FY18**

**2008 International SER - Ambulance 2**

This ambulance is a front line ambulance that is utilized more than any other vehicle with the exception of Ambulance 1. It responds to approximately 2,500 incidents annually. This ambulance is due to be replaced this year and is the oldest vehicle in the fleet. The current vehicle will be traded in to offset some of the purchase costs of the replacement vehicle. Because these ambulances are operating much of the time, they are utilized as front line vehicles and then when replaced put into a back-up vehicle status for additional years of service.

The entire community of Andover will benefit from this project by having reliable and efficient apparatus to meet the needs of those who require EMS treatment, triage and transport to a medical facility. The

consequences of deferring this project will result in increased unreliability, decreased organizational efficiency and an increase in maintenance costs.

**2008 Chevrolet Tahoe – Car 4** This vehicle served as the Shift Commander front line response vehicle until 2013 when it was placed into reserve to be utilized for emergency and non-emergency responses. This vehicle serves as the back-up/reserve response vehicle to the three staff vehicles in service when required and is utilized as the secondary command vehicle during moderate to large scale events.

#### **FY19**

##### **2009 International SER - Ambulance 4**

This ambulance is a front line ambulance that is utilized more than any other vehicle with the exception of Ambulance 1. This vehicle was utilized as a front line response vehicle for five years and serves as a back line reserve vehicle and is placed back into front line status when required due to preventative maintenance or mechanical malfunctions of the current front line response ambulances. This ambulance is due to be replaced this year and the oldest vehicle in the fleet will be traded in to offset some of the purchase costs.

The current vehicle will be traded in to offset some of the purchase costs of the replacement vehicle. Because these ambulances are operating much of the time, they are utilized as front line vehicles and then when replaced put into a back-up vehicle status for additional years of service.

The entire community of Andover will benefit from this project by having reliable and efficient apparatus to meet the needs of those who require EMS services. The consequences of deferring this project will result in increased unreliability, decreased organizational efficiency and an increase in maintenance costs.

##### **2004 Ford Pick-Up – Forestry 2**

Forestry 2 is housed at the West Fire Station and serves as one of two forestry firefighting vehicles within the fleet. This apparatus responds to brush or wildland fires within the community and also serves as a utility truck when performing at rescue responses that require lengthy extrications of injured people in wooded areas and those areas that pose access challenges.

#### **FY20**

##### **1999 KME Tower Ladder – Ladder 2**

This aerial ladder has served as the reserve aerial for Andover Fire Rescue since 2005. Prior to then the aerial was a front line piece of apparatus. This reserve ladder is pressed into “front line” service whenever Ladder 1 is out of service due to mechanical malfunctions, preventative maintenance or when Ladder 1 has been requested to respond to another community for mutual aid. The Insurance Service Organization (ISO) has awarded points

#### **FY21**

##### **2001 KME Excel – Engine 2**

Engine 2 is scheduled to be replaced in FY 18. This vehicle will be 16-17 years in age and will be utilized as the reserve engine for many additional years once replaced.

##### **2011 Chevrolet Tahoe – Car 3**

Car 3 was originally Car 1 for a short period of time and was then designated as Car 3 as the result of the vehicle needing replacement due to repair costs and transmission issues. This vehicle is assigned on a daily basis to the Fire Prevention Officer so that he can perform the required inspections on a daily basis. This vehicle is utilized as a secondary staff vehicle during the Fire Prevention Officers’ off duty hours when needed.



**FY22****2011 International 4300 – Ambulance 3**

This ambulance is currently a reserve ambulance that is utilized when one of the front line ambulances is out of service. This ambulance is due to be replaced this year and is the oldest vehicle in the fleet. It will be traded in to offset some of the purchase costs of the replacement vehicle. Because these ambulances are operating much of the time, they are utilized as front line vehicles and then when replaced put into a back-up (reserve) vehicle status for additional years of service.

The entire community of Andover will benefit from this project by having reliable and efficient apparatus to meet the needs of those who require EMS services. The consequences of deferring this project will result in increased unreliability, decreased organization efficiency and an increase in maintenance costs.

<b>Cost Estimate &amp; Timing:</b>
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**FY18****2008 International 400 SER – Ambulance 2**

- \$270,000 based upon current bid specifications as arranged by EMS Apparatus Committee and current NFPA standards.
- 2011 Chevrolet Tahoe – Car 4  
\$53,000 based on the replacement of all radio and emergency response equipment that is required as part of the response package.

**FY19****2009 International 400 SER Ambulance 4**

- \$275,000 based upon current bid specifications as arranged by EMS Apparatus Committee and current NFPA standards. The cost will also allow for the replacement of the stretcher and other costly aged equipment.
- 2004 Ford Pick-Up with forestry firefighting skid unit – Forestry 2  
\$70,000 cost to replace the truck and the skid unit that is approximately 30 years old.

**FY20**

- Tower Ladder – Ladder 2  
\$865,000 based on specifications developed by the Fire Department Apparatus Committee through a needs analysis and the annual manufactures cost increases based on EPA emissions updates, and the increase in steel and technology costs.

**FY21**

- 2011 Chevrolet Tahoe – Car 3  
\$53,000 based upon current bid specifications and consistency of fleet for warranty, ease of replacement parts and repairs.
- 2001 KME Excel – Engine 2  
\$700,000 based on specifications developed by the Fire Department Apparatus Committee and the annual manufactures cost increases based on EPA emissions updates, and the increase in steel and technology costs.

**FY22**

- 2011 International 4300 – Ambulance 3  
\$285,000 based upon current bid specifications as arranged by EMS Apparatus Committee and current NFPA standards.

<b>Estimated Annual Cost or Savings of Operation and Maintenance:</b>
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All of the vehicle replacements are recommended based upon the Andover Fire Rescue vehicle replacement schedule developed in 2007 and revised in 2015. The replacement schedule was formulated so that Andover Fire Rescue could forecast their vehicle replacements based on industry standards and the overall use of the specific vehicles within the fleet. These replacements are usually necessary based upon their lack of reliability, firefighter safety, cost of maintenance, and technology upgrades.

Engines are scheduled to be replaced every twenty (20) years.  
Ladders are scheduled to be replaced every twenty (20) years.  
Ambulances are scheduled to be replaced every ten (10) years.  
Staff vehicles are scheduled to be replaced every ten (10) years

<b>Town Manager's Recommendation:</b>
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The Town Manager supports funding this request for FY18 – FY22.

<b>Fiscal Year</b>	<b>Dept. Request/Proposed</b>	<b>TM Recommended/Plan</b>
<b>2018</b>	\$323,000	\$323,000
<b>2019</b>	\$345,000	\$345,000
<b>2020</b>	\$865,000	\$865,000
<b>2021</b>	\$753,000	\$753,000
<b>2022</b>	\$285,000	\$285,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018- FY2022

PROJECT REQUEST: ***Emergency Services Call Box***

FR-2

**Department Priority Ranking: 3**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18: \$10,500**  
**Original Dept. Request: \$10,500**  
**Submitted by: Chief M. Mansfield**  
**Department: Andover Fire Rescue**  
**Funding Source: General Fund Revenue**

**Project Description:**

This project would allow for the installation of an automatic three button, solar powered radio box at Pomp's Pond so that the residents and visitors utilizing the recreational area could report a fire/medical/police incident to the Andover Public Safety Communications Center in the event of an emergency.

**Project Justification and Purpose:**

This project would allow for the installation of one solar powered emergency radio box in the area of the Pomp's Pond recreational areas. This area is utilized by thousands of youths and adults annually and they should have quick access to emergency response personnel and equipment in the event of an injury, medical emergency or police matter.

The radio box would eliminate the need to use cellular phones to contact the Andover emergency services and decrease the response times to the pond when someone from the community or a visitor is in need.

**Cost Estimate & Timing:**

The estimated cost of this project is \$10,500. If approved, this project would be specified and completed in FY 2018.

**Estimated Annual Cost of Operation and Maintenance:**

There are very minimal operational or maintenance costs associated with this project.

**Town Manager's Recommendation:**

The Town Manager supports this request.

FISCAL YEAR	Dept. Request/Proposal	TM Recommended/Plan
2018	\$10,500	\$10,500

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: *Annual Staff Fleet Computer Refresh*

IT-1

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$442,018  
**Original Dept. Request:** \$442,018  
**Submitted by:** Paul J. Puzzanghera, CIO  
**Department:** Information Technology  
**Funding Source:** General Fund Revenue

**Project Description:**

This article provides personal computers (both desktop and laptop) to all Andover staff including Town knowledge workers, school knowledge workers and teachers. Computers are leased and are refreshed every four years.

**Project Justification and Purpose:**

This provides up to date computers for all Town and School staff.

**Cost Estimate & Timing:**

See chart below. In FY18 IT is recommending shifting away from the previous plan of providing full four year warranties for all computers. Our operating experience shows that actual repair costs are significantly below warranty costs. Further we have experienced a variety of repairs and losses which are not covered under standard warranties. Consequently, we are adding new funding for repair costs which will allow us to self insure while reducing the budget for computer purchase by eliminating the warranty.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

All annual costs are included in this article.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$442,018	\$442,018
2019	\$437,500	\$437,500
2020	\$437,686	\$437,686
2021	\$442,266	\$442,266
2022	\$446,845	\$446,845

IT-1	Machines Leased	Cost Per Unit	FY17	FY18	FY19	FY20	FY21	FY22
<b>Town and School Administrative Computers</b>								
Existing Administrative Leases			65,195	49,136	24,931			
FY17 Town + School Admin Lease	100	197	19,740	19,740	19,740	19,740		
FY18 Town + School Admin Lease	105	197		20,727	20,727	20,727	20,727	
FY19 Town + School Admin Lease	110	197			21,714	21,714	21,714	21,714
FY20 Town + School Admin Lease	115	197				22,701	22,701	22,701
FY21 Town + School Admin Lease	120	197					23,688	23,688
FY22 Town + School Admin Lease	125	197						24,675
Monitor Purchase	75	200		15,000	15,000	15,000	15,000	15,000
Repair Allowance				16,736	16,338	15,981	16,613	17,244
<b>Admin Machine Subtotal</b>				<b>121,339</b>	<b>118,449</b>	<b>115,862</b>	<b>120,442</b>	<b>125,022</b>
<b>Teacher Computers</b>								
Existing Teacher Leases			124,212	17,509	6,857			
FY17 Teacher Lease	200	370	73,982	73,982	73,982	73,982		
FY18 Teacher Lease	500	370		184,956	184,956	184,956	184,956	
FY19 Teacher Lease	25	370			9,248	9,248	9,248	9,248
FY20 Teacher Lease	25	370				9,248	9,248	9,248
FY21 Teacher Lease	200	370					73,982	73,982
FY22 Teacher Lease	500	370						184,956
Repair Allowance				44,232	44,007	44,389	44,389	44,389
<b>Teacher Machine Subtotal</b>				<b>320,679</b>	<b>319,050</b>	<b>321,824</b>	<b>321,824</b>	<b>321,824</b>
<b>Software</b>								
Microsoft Office + Cals Town Admin				47,775	50,050	52,325	54,600	56,875
Microsoft Office School Enterprise License				35,000	35,000	38,000	38,000	38,000
Apple Management Software				11,200	11,200	11,200	11,200	11,200
Anti Virus Software				10,000	10,000	10,000	10,000	10,000
<b>Software Subtotal</b>				<b>103,975</b>	<b>106,250</b>	<b>111,525</b>	<b>113,800</b>	<b>116,075</b>
<b>Total CIP Request</b>				<b>545,993</b>	<b>543,750</b>	<b>549,211</b>	<b>556,066</b>	<b>562,920</b>
<b>General Fund Revenue</b>				<b>442,018</b>	<b>437,500</b>	<b>437,686</b>	<b>442,266</b>	<b>446,845</b>
<b>Taxation</b>				<b>103,975</b>	<b>106,250</b>	<b>111,525</b>	<b>113,800</b>	<b>116,075</b>

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Annual Student Fleet Computer Refresh IT-2***

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \*\*  
**Original Dept. Request:** \$278,143  
**Submitted by:** Paul J. Puzzanghera, CIO  
**Department:** Information Technology  
**Funding Source:** General Fund Revenue

**Project Description:**

Provide funding for iAndover 1:1 technology initiative

**Project Justification and Purpose:**

This article provides funding to enable all Andover students to have access to a personal computing device during the school day to:

- Provide access to desktop and web based applications and learning platforms
- Provide a platform for moving fully to an eBooks digital format in lieu of expensive traditional paper versions
- Access new generation learning content (videos, audiobooks, rich multimedia content, etc.)
- Facilitate research and note-taking
- Provide assistive learning environments for special education students
- Encourage collaboration
- Create new opportunities for differentiated instruction and real time assessment

The Andover program utilizes a hybrid approach that provides in-school devices to elementary students but allows middle and high school students to “Bring Your Own Device” (BYOD) to permit 24x7 access to learning tools and environments. This model allows us to promote a full 1:1 program in a more cost efficient manner. Specifically:

Grade K-2 students are provided with a tablet oriented device by the district

Grade 3-5 students are provided with an Internet aware laptop

Grades 6-12 May bring their own laptop. Students with demonstrated need are provided for by the district

In FY15 this program was piloted in grades 7-9. In FY16 it was expanded to include grades 6-10. In FY17 it will be further expanded to grades 4-10. This funding expands usage to all students grades K-12. This article provides funds for the devices themselves along with cases, charging carts and necessary infrastructure enhancements.

**Cost Estimate & Timing:**

See below.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

This will create a permanent recurring cost to the Town/District for devices and repair.

**Town Manager's Recommendation:**

\*\* The Town Manager supports a total of \$1,495,643 of General Fund Revenue allocated between

SCH-1, SCH-2, SCH-9 and IT-2 for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$278,143	**
2019	\$217,343	
2020	\$217,343	
2021	\$217,343	
2022	\$607,723	

	Unit Cost	Students	FY18 Devices Needed	FY17	FY18	FY19	FY20	FY21	FY22
<b>Student 1:1 Devices</b>									
Elementary (K-2)	379	1,189	1,213	0	459,644	9,193	9,193	9,193	495,694
Elementary (3-5)	300	1,424	446	301,800	133,944	8,715	8,715	8,715	469,920
Middle School (6-8)	300	1,517	10	18,900	3,000	978	978	978	500,610
High School (9-12)	300	1,811	94	9,300	28,117	1,108	1,108	1,108	597,630
Lab and Shared Student Machines	800							160,000	
Cases	25		1,763	27,500	44,075	1,506	1,506	1,506	35,173
Chromebook Configuration and Management	50		550	55,000	27,510	3,013	3,013	3,013	70,345
<b>Infrastructure</b>									
Repair Allowance	200				24,104	24,104	24,104	24,104	24,104
Charging Carts	1,000		22	48,000	22,000				
Access Points	650		80	78,000	52,000				
Switches	2,200		4	39,600	8,800				
Management Software					33,590	33,590	22,390	12,902	12,902
AntiVirus Software					3,965	3,965	3,965	1,000	1,000
<b>Funding Options (Select One)</b>									
Purchase (Fund all 4 years)				578,100	1,224,413				2,207,378
Purchase (Fund year at a time)				578,100	840,748	86,173	74,973	222,520	2,207,378
Annual Lease					278,143	217,343	217,343	217,343	607,723

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Elementary Interactive Projector Refresh – Phase 2*** IT-3

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18: \$200,000**  
**Original Dept. Request: \$336,647**  
**Submitted by: Paul J. Puzzanghera, CIO**  
**Department: Information Technology**  
**Funding Source: General Fund Revenue**

**Project Description:**

Complete the installation of interactive video projectors in all elementary classrooms

**Project Justification and Purpose:**

In 2012 the Town voted to provide interactive projectors to all middle school and high school classrooms as part of a larger town and school wide IT infrastructure refresh. At that time, smart-type boards (including SMARTBoards, Prometheans, and other products) were reassigned to provide a uniform experience for all elementary schools. It was determined that younger children would respond better to the touch capabilities provide by smart-type boards. Older students instead used new low cost interactive projectors with pen capabilities. The boards located at the elementary schools have begun failing at an accelerating rate. Most of these boards are 8-10 years old with many even older. Spare parts are no longer available for these devices and IT is no longer able to restore failed boards to a functional state. Recently a new generation of low cost touch sensitive projectors arrived on the market. This proposal is to provide funding to replace aging, expensive boards in each elementary classroom with new state of the art, low cost interactive projectors. In FY17 Town Meeting allocated funds to upgrade roughly half of the elementary classroom. This proposal will continue work towards the upgrade.

**Cost Estimate & Timing:**

This request will fund the purchase of 70 new projectors. Funds are also reserved for anticipated repairs to the existing fleet of high school and middle school projectors which are no longer under warranty. Costs include the projector, whiteboard, software and cabling. They assume all installation is performed by existing P&F resources at no cost.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

These projectors are roughly 40% of the cost of the comparable Smartboard type product. Replacement bulbs are \$79/unit and should last roughly 2 years. New projectors are controlled via a network interface and are turned on and off centrally to ensure maximum energy efficiency and to extend bulb life. Replacement bulbs are paid for from department/school operating funds.

**Town Manager's Recommendation:**

The Town Manager supports funding \$200,000 for this request in FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$336,647	\$200,000
2019		
2020		
2021	658,140	\$0
2022		



TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Public Meeting Room Technology Upgrade***

IT-4

**Department Priority Ranking: 2**

*(1 = highest, 2 = second highest, etc.)*

**TM's Rec. for FY18: \$50,000**

**Original Dept. Request: \$100,000**

**Submitted by:** Paul J. Puzzanghera, CIO

**Department:** Information Technology

**Funding Source:** General Fund Revenue

**Project Description:**

Upgrade the audio and video elements of Selectman's Conference Room and School Committee room to allow for enhanced presentations, improved audio, improved collaboration and full video conferencing.

**Project Justification and Purpose:**

Increasingly, public and internal meetings require the participation of remote participants. Recent changes in Massachusetts law permit members of certain boards to participate through either and or video conferencing as long as certain requirements are met. Most vendor presentations now require a mixture of local and remote participants. Further, progressive school districts are integrating many components of "distance learning" both to allow local resources to serve other communities as well as to be able to consume educational resources from schools, universities or private companies to supplement local resources.

Our Selectman's Room and School Committee room are our two most widely used public spaces and should serve as prototypes for increasing the utilization of video conferencing and related technology throughout town and schools. This article will provide funding for improving the technology present in these two rooms to allow for:

- Enhance video presentation capabilities to allow for interactive presentations
- Allow participation of more than one site and more than one remote participant in a video conference
- Enhance video and voice capture capabilities so that all local and remote participants can be viewed and heard simultaneously
- Enhance local audio and video capabilities so that the audience has improved access
- Allow for simultaneous display of participants and presentation material
- Allow all participants to share presentation material

This will involve modifications to the two rooms to capture video and audio more efficiently and to install special software and hardware to allow for multi-person participation. Many of these features are natural extensions of the recently acquired Cisco Unified Communications environment.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

There will be additional annual costs for maintenance fees for hardware and software purchases.

**Town Manager's Recommendation:**

The Town Manager supports funding \$50,000 towards this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$100,000	\$50,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: *Safety and Security Upgrade – Phase 2*

IT-5

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$300,000  
**Original Dept. Request:** \$300,000  
**Submitted by:** Paul J. Puzzanghera, CIO  
**Department:** Information Technology  
**Funding Source:** General Fund Borrowing

**Project Description:**

Complete the installation of Unified Communications technology in all classrooms and municipal buildings.

**Project Justification and Purpose:**

At the May 2015 Town Meeting funds were allocated to install phones, intercoms and related communications equipment in all town and school municipal buildings. Those funds assumed installation of the equipment by town staff. Unfortunately existing staffing levels do not permit a timely installation of all required cabling and devices given the competing demands of multiple simultaneous technology initiatives. This request is for supplemental funding to complete the installation and deployment.

**Town Manager's Recommendation:**

The Town Manager supports funding this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$300,000	\$300,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Redundant Fiber***

IT-6

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$300,000  
**Original Dept. Request:** \$300,000  
**Submitted by:** Paul J. Puzzanghera, CIO  
**Department:** Information Technology  
**Funding Source:** General Fund Borrowing

**Project Description:**

Construct additional connections on Andover's Fiber Optic network to provide redundancy and ensure continuous business and public safety operations in the event of a fiber disruption.

**Project Justification and Purpose:**

10+ years ago the Town of Andover made a critical investment to build an internal fiber optic network that links all municipal and school buildings to allow virtually unlimited communications capabilities within our distributed campus. In simplest terms, two large fiber bundles extend from IT's main data center in the School Administration building – one runs north through the center of Town, past the high school and all the way to the High/Plain/Wood Hill complex; the second runs south toward the Bancroft school and Ballardvale. As the fiber bundle passes each municipal structure, individual fibers are broken out and extended directly into our buildings. The network is constructed on existing utility poles adjacent to fiber from Verizon, Comcast and others.

Initially this fiber was lightly utilized but over the past three years IT has made the available fiber the backbone for our communications and centralization strategy. Virtually all technology hardware has been removed from every building and is instead now located at a centralized data center. All communications traffic now flows out of the individual buildings through the fiber to our central location and then routed either to another building or to the Internet. This traffic now includes: all internal applications; all external Internet connectivity for business and educational use; all voice/phone/unified communications traffic; all wireless connectivity; etc. This is a tremendous benefit since we now have a single centralized cluster of servers, storage, voice gateways, video communication, and Internet connectivity. Recently, our Public Safety departments have utilized our existing fiber to digitize and route all radio transmissions from emergency vehicles replacing a costly and antiquated Verizon based analog network.

However, now that this is the backbone for all communications activity it highlights the inherent vulnerability of our simple single fiber architecture. Any cut or fiber disruption at any point in the network will cause all buildings and public safety vehicles operating outside the perimeter of the disruption to lose all communications capacity until repairs can be made. Further the network is vulnerable because all 300+ pieces of individual fiber are terminated in a single location. A fire or similar event would render 100% of our data and communications capabilities unusable for potentially multiple weeks.

This article allocates funds to build redundant fiber runs along alternate pathways to minimize the impact of any individual fiber cut and to provide a secondary fiber connection to eliminate the risk associated with a catastrophic event in our main fiber termination point.

<b>Cost Estimate &amp; Timing:</b>
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This project would be executed by an external vendor over a number of months.

<b>Estimated Annual Cost or Savings of Operation and Maintenance:</b>
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<b>Town Manager's Recommendation:</b>
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The Town Manager supports funding this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$300,000	\$300,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Municipal Web Site Development – Phase 2***

IT-7

**Department Priority Ranking: 3**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$10,000  
**Original Dept. Request:** \$30,000  
**Submitted by:** Paul J. Puzzanghera, CIO  
**Department:** Information Technology  
**Funding Source:** General Fund Revenue

**Project Description:**

Phase 2 extensions of the new municipal Andover Web Site

**Project Justification and Purpose:**

This will provide funding for development and other one-time fees to extend the new municipal web site rolled out in FY17. This will include incorporating replicating functionality currently present in other 3<sup>rd</sup> party sites maintained by individual departments as well as integrating additional CivicPlus functionality that was not funded in Phase 1.

**Cost Estimate & Timing:**

**Estimated Annual Cost or Savings of Operation and Maintenance:**

The web sites are a very dynamic and critical part of the Town's commitment to increased citizen access transparency. Consequently, the expectation should be for continued expansion and renewal to provide the richest possible experience and benefit.

**Town Manager's Recommendation & Priority Ranking:**

The Town Manager supports funding \$10,000 in each year for this request (FY18-FY22).

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$30,000	\$10,000
2019	\$10,000	\$10,000
2020	\$10,000	\$10,000
2021	\$10,000	\$10,000
2022	\$10,000	\$10,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Video Management Platform – Phase 2***

IT-8

**Department Priority Ranking: 3**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18: \$0**  
**Original Dept. Request: \$50,000**  
**Submitted by: Paul J. Puzzanghera, CIO**  
**Department: Information Technology**  
**Funding Source: General Fund Revenue**

**Project Description:**

Expand the use of our pilot video server platform to all Town and School users

**Project Justification and Purpose:**

During the construction of the Bancroft School the school district acquired server technology that allows teachers to create, store and publish educational videos easily. Teachers can create their own private or public “channels” for example to create a group of lectures or “how to” videos on multiplication. The system also permits the creation of digital signage in buildings; the capture and rebroadcast of live TV; capturing and storing meetings; student performances; sporting events; and much more. This information can be used both within the Town/School network and can also be made available to the public through our web site. More details can be found at: <http://www.safarimontage.com/>

This article provides funding to expand the usage of this technology to all town and school staff and to acquire specialized cameras and distribution equipment.

**Cost Estimate & Timing:**

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Annual support costs of \$10-15K are required.

**Town Manager's Recommendation & Priority Ranking:**

The Town Manager does not support funding this request at this time.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$50,000	\$0
2019		
2020		
2021		
2022		

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Town Projects - Building Division***

P&F-1

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \$275,000  
**Dept. Request:** \$275,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Source:** General Fund Revenue

<b>Project Description:</b>
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	Priority	FY18	FY19	FY20	FY21	FY22
Project Overtime	1	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
Town Offices Refurbishing	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Security System Upgrades	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Playground Equipment	1	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Door & Door Hardware Replacement	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
ADA Compliance	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Paving, Sidewalk, Curb repairs	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Misc. Building Roof Repairs	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Misc. Repairs-Town Yard Bldg.	1	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
<b>Totals</b>		<b>\$275,000</b>	<b>\$275,000</b>	<b>\$275,000</b>	<b>\$275,000</b>	<b>\$275,000</b>

<b>Project Justification and Purpose:</b>
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Project Overtime – Plant & Facilities trade staff in support of Town/School capital projects.

Town Offices Refurbishing – Funds are requested for the ongoing program to replace carpeting, floor tile, signage, etc. in the Town Offices building.

Security System Upgrades – Funds are requested for the ongoing program to upgrade antiquated perimeter security systems and install access control and some CCTV cameras in Town buildings.

Playground Equipment – Funds are requested to repair aging playground equipment at Cuba Street, Lower Shawsheen & Penguin Park playgrounds. These funds will also be used to purchase safety surfacing material to replace areas as needed.

Door & Door Hardware Replacement – Funds are requested for ongoing program to replace our aging interior and exterior doors and door hardware on Town buildings.

ADA Compliance – Funds are requested to support the Town Master Plan to address handicap accessibility requirements in all buildings.

Paving, Sidewalks, Curb Repairs – Funds are requested to repair aging driveways, sidewalks and catch basins at all Town buildings.

Miscellaneous Building Roof Repairs – Funds are requested to make minor repairs to miscellaneous Town buildings, such as the slate roofing at the Old Town Hall, the storage building at Balmoral and the buildings at Rec Park.

Miscellaneous Repairs to the Existing Town Yard Buildings – Funds are requested to make repairs to the existing buildings at the Town Yard. They have exceeded their life expectancy and repairs are necessary to maintain safe usage of these buildings.

<b>Cost Estimate &amp; Timing:</b> \$275,000
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<b>Estimated Annual Cost of Operation and Maintenance:</b>
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<b>Town Manager's Recommendation:</b>
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The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$275,000	\$275,000
2019	\$275,000	\$275,000
2020	\$275,000	\$275,000
2021	\$275,000	\$275,000
2022	\$275,000	\$275,000



TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Town Projects – Mechanical Electrical Division***

P&F-2

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18: \$170,000**  
**Original Dept. Request: \$170,000**  
**Submitted by: Chris Cronin, Director**  
**Department: Municipal Services**  
**Funding Source: General Fund Revenue**

<b>Project Description:</b>						
	Priority	FY2018	FY2019	FY2020	FY2021	FY2022
Engineering	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Replace/Retrofit Fiberglass Street Light Poles	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Exterior Oil/Water/Sand Separators Cleaning	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Public Safety Center Shooting Range Lead Abatement	1	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
HVAC/Controls Upgrades	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Oil Tank Inspections and Maintenance	1	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Energy Conservation	2	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Smoke Detector and fire alarm	2	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
<b>Totals</b>		<b>\$170,000</b>	<b>\$170,000</b>	<b>\$170,000</b>	<b>\$170,000</b>	<b>\$170,000</b>

**Project Justification and Purpose:**

Engineering – Funds are needed for professional engineering fees to implement capital projects.

Replace/Retrofit Fiberglass Street Light Poles – Funds are requested for the ongoing program to replace the Town owned fiberglass street light poles with metal units and replace damaged light poles on Main Street. Funds will also be used to begin retrofitting street lights to newer LED technology.

Exterior Oil/Water/Sand Separators Cleaning – Funds are requested to comply with EPA Regulations regarding the annual cleaning of oil/water/sand separators in all of our School and Town building parking areas.

PSC Shooting Range Lead Abatement – Shooting Ranges and portions of the range exhaust system accumulate lead contamination and must be abated annually. Funds are requested for this lead abatement.

HVAC/ Controls Upgrades – Much of the Town Offices and School Administration Buildings are served by outdated and inefficient HVAC distribution and control components. These obsolete components need to be replaced with modern digital controls phased over a period of five years.

Oil Tank Inspections and Maintenance – Recently, new regulations have been implemented requiring that we have all our above ground oil tanks inspected and repaired by a third party company prior to the state inspections.

Energy Conservation – These funds will be used to continue implementation of new energy conservation initiatives in all Town buildings.

Smoke Detectors and Fire Alarms – Fire codes specify that smoke detectors be replaced or recalibrated every 10 (ten) years. This funding will replace out of date detectors at Town Buildings. In addition, as our fire alarm systems age they are requiring more repairs.

**Cost Estimate:**

\$170,000

**Estimated Annual Cost of Operation and Maintenance:**

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

<u>Fiscal Year</u>	<b>Dept. Request/Proposed</b>	<b>TM Recommended/Plan</b>
<b>2018</b>	\$170,000	\$170,000
<b>2019</b>	\$170,000	\$170,000
<b>2020</b>	\$170,000	\$170,000
<b>2021</b>	\$170,000	\$170,000
<b>2022</b>	\$170,000	\$170,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Town Vehicles***

P&F-4

**Department Priority Ranking: 1**

*(1 = highest, 2 = next highest, etc.)*

**TM's Rec. for FY18: \$105,000**

**Original Dept. Request: \$105,000**

**Submitted by:** Chris Cronin, Director

**Department:** Municipal Services & Schools

**Funding Source:** General Fund Revenue

Dept./Div.	Year	Make/Model	FY2018	FY2019	FY2020	FY2021	FY2022
P&F Admin.-1-Security	2006	Ford Escape 4x4			24,000		
Build. Maint.-8	2006	Ford F250 3/4T Utility Body 4x4					
Build. Maint- Paint	2000	GMC Safari Cargo Van (Priority 4)	25,000				
Build. Maint-10	2002	Ford Ranger Super Cab Pickup 4x4					
Build. Maint-4	2009	2009 Chevy Colorado 4wd Pickup		26,000			
Build. Maint-Rack	1999	Chevy C3500 1T Rack/Dump					
Build. Maint-6	2006	Chevy Express Van – Delivery Truck (Priority 2)	27,000				
Build. Maint-12	2014	Ford F250 3/4T F2B Pickup 4x4					28,000
Build. Maint-14	2015	Ford Transit Connection Van 1/2T S7E1 121 LWB					
Elder Services- 1	2012	Ford Focus P3K-HB				18,000	
Elder Services- 2	2013	Ford Focus P3K-HB					18,000
Elder Services- 3	2008	Chevy Uplander Van					
Elder Services- 4	2008	Ford E450 Econo Bus 1 1/2T BW			65,000		
Info Technology-1	2014	Ford Transit Connect Cargo S6EZ SWEB XL					25,000
Mech/Electrical-5	2011	Ford E250 3/4T Van		25,000			
Mech/Electrical-17	2010	Ford Transit Connect XL Cargo Van				25,000	
Mech/Electrical-11	2010	Ford Transit Connect XL Cargo Van				25,000	
Mech/Electrical-9	2013	Ford Transit Connect Van 1/2T S6A				25,000	
Mech/Electrical-13	2010	Ford Transit Connect XL Cargo Van					
Mech/Electrical-7	2015	Ford Transit Connection Van 1/2T S7E1 121 LWB					25,000
Mech/Electrical-15	2015	Ford F450 1 1/2T Chassis w/Fiberglass Utility Body&Dur-A-Lift					
Mech/Electrical-3	2006	Chevy Colorado CT1565 Supercab 4x4 (Priority 3)	26,000				
Vehicle Maint- 8	1996	Ford Ranger 4X4 Pickup - used for parts					
Vehicle Maint- 86	2000	Chevy K3500 1T Pickup 4x4 (Priority 1)	27,000				
Vehicle Main – 18	2002	Ford Ranger 4X4 Pickup					
Youth Services- 3	2012	Ford E450 1 1/2T Elkhart 15 Passenger Coach				50,000	
Youth Services- 1	2011	Ford E450 1 1/2T Elkhart 15 Passenger Coach			50,000		
Youth Services- 2	2010	Ford E450 1 1/2T Elkhart 15 Passenger Coach		50,000			
Youth Services- 4	2001	Ford Ecowag E350 1T Van					
<b>Total P&amp;F-4</b>			<b>105,000</b>	<b>101,000</b>	<b>139,000</b>	<b>143,000</b>	<b>96,000</b>

**Project Justification and Purpose:**

Vehicle replacements have been pushed out year after year due to budget constraints. We can keep vehicles running mechanically, but metal rot is overtaking the vehicles' frames and bodies to the point that they will become unsafe to drive.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
<b>2018</b>	\$105,000	\$105,000
<b>2019</b>	\$101,000	\$101,000
<b>2020</b>	\$139,000	\$139,000
<b>2021</b>	\$143,000	\$143,000
<b>2022</b>	\$96,000	\$96,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: **Major Town Projects**

P&F-6

**Department Priority Ranking: 1**

(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18: \$320,000**

**Original Dept. Request: \$320,000**

**Submitted by:** Chris Cronin, Director

**Department:** Municipal Services

**Funding Sources:** General Fund Borrowing

	Priority	FY2018	FY2019	FY2020	FY2021	FY2022
Memorial Hall Library – Repairs to front granite stairs	1	\$50,000				
Memorial Hall Library – Office construction	1	\$20,000				
Memorial Hall Library – Install generator	2		\$220,000			
Memorial Hall Library – Stone wall repairs	2		\$75,000			
Memorial Hall Library – Restrooms	4				\$150,000	
Memorial Hall Library – Front entrance door replacement	4				\$25,000	
Town Offices – Replacement of generator	1	\$200,000				
Town Offices Renovations	1	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Town Offices and Center at Punchard – Sidewalk repairs	3			\$75,000		
West Fire Station Upgrades	3			\$250,000		
West Fire Station – Approach ramp apron reconstruction	4				\$15,000	
Old Town Hall – Carpet replacement	5					\$30,000
School Administration and Center at Punchard – Building masonry repairs	5					\$75,000
Lower Shawsheen – Balmoral storage garage stone wall repairs	5					\$50,000
<b>Totals</b>		<b>\$320,000</b>	<b>\$345,000</b>	<b>\$375,000</b>	<b>\$240,000</b>	<b>\$205,000</b>

**Project Justification and Purpose:**

Memorial Hall Library – Repairs to the front granite stairs - Funds are requested to make repairs to the granite stairs at the main entrance of the library. The granite has shifted and separated, causing gaps and non-uniform riser heights, creating a serious trip hazard. Many people have tripped on them during the past few years. Funds were requested, but cut from CIP FY2017.

Memorial Hall Library – Office construction – Funds are requested to build a wall and door in the ground level inter-library loan office. This will allow the rear space to be occupied as an office and the remaining space can be used as a meeting area or maker space.

Memorial Hall Library – Install generator –Funds are requested to replace the old generator, which is inside the building, with a new diesel powered self-contained exterior unit. This will require a complete upgrade to the building's emergency electrical panels and system and the new generator will power the whole building in the event of an emergency.

Memorial Hall Library – Stone wall repairs – Funds are requested to make repairs to the stone retaining wall that runs along the Essex street side of the building along with the Pearson street side of the parking lot. Numerous stones have fallen out and the entire wall needs to be re-pointed.

Memorial Hall Library – Restrooms – Funds are requested to create two non-gendered restrooms on the second floor

of the building. There are currently no public restrooms on this level. When there are meetings in the hall people have to travel to the level below in order to find a public restroom.

Memorial Hall Library – Front entrance door replacement – Funds are requested to replace the front entrance doors. The current doors are showing signs of rot and are becoming problematic.

Town Offices Building – Replacement of generator – Funds are requested to replace the current generator that is inside the building with a larger, exterior model. The current generator supplies emergency power to the Town offices, School Administration and Center at Punchard. It only powers basic emergency lighting, heating equipment and main data server rooms. The complex frequently loses power shutting down town operations. This new generator will power the entire complex, allowing for Town services to remain operational during an emergency.

Town Offices Building Renovations – Funds are requested to make upgrades to various offices throughout the Town Office Building. As staff are replaced or new staff are hired changes in the layout of the offices and wall modifications are required resulting in costs to accomplish this. The majority of this work is being outsourced to contractors which is adding to the cost to complete.

Town Offices and Center at Punchard – Sidewalk repairs – Funds are requested to replace the concrete sidewalks around the building. The majority of them have cracked and heaved, causing tripping hazards.

West Fire Station Upgrades – Funds are requested to upgrade the existing bathroom facilities. The bathrooms are original and do not allow for a mixed gender work force. Currently there is only one bathroom facility and it is utilized by both male and female personnel. The National Fire Protection Association Standards, as related to construction or renovation of fire stations, requires separate facilities for male and female personnel.

West Fire Station – Approach ramp apron reconstruction – Funds are requested to reconstruct the approach apron in front of the overhead doors to the station. Over time, the weight of the trucks have settled the asphalt causing a dip in the pavement. Trucks have to maneuver this dip when entering and leaving the station.

Old Town Hall – Carpet Replacement – Funds are requested to replace the carpeting in the senior drop in center and the rear office space. The existing carpet has been in place over 20 years and is showing signs of excessive wear and staining. Carpet will be replaced with similar flooring that will hold up to the current uses of the spaces.

School Administration and Center at Punchard – Building masonry repairs – Funds are requested to make repairs to cracks, repointing and cleaning of the brick façade of the building. Over the years numerous areas have started to deteriorate.

Lower Shawsheen – Balmoral storage garage stone wall repairs – Funds are requested to make repairs to the stone wall surrounding the Balmoral storage garage. The stone have fallen out of the wall and the entire area needs repointing.

<b>Cost Estimate:</b>
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\$320,000
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<b>Town Manager's Recommendation:</b>
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The Town Manager supports funding for FY18 – FY22.

FISCAL YEAR	Dept. Request/Proposal	TM Recommended /Plan
2018	\$320,000	\$320,000
2019	\$345,000	\$345,000
2020	\$375,000	\$375,000
2021	\$240,000	\$240,000
2022	\$205,000	\$205,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: *Town / School Energy Initiatives*

P&F-7

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \$420,000  
**Original Dept. Request:** \$420,000  
**Submitted by:** Chris Cronin, Director  
**Department:** Municipal Services  
**Funding Sources:** General Fund Borrowing

**Project Description:**

Town	Priority	FY2018	FY2019	FY2020	FY2021	FY2022
Old Town Hall – Boiler	1	\$200,000				
Rec Park – Convert to LED Lighting	2		\$75,000			
Old Town Hall HVAC upgrades	3			\$150,000		
West Fire Station HVAC and EMS upgrades	5					\$80,000
Old Town Hall LED lighting upgrades	5					\$100,000
Youth Center heat conversion	5					\$50,000
Red Spring Road Install EMS	5					\$50,000
<b>Totals</b>		<b>\$200,000</b>	<b>\$75,000</b>	<b>\$150,000</b>	<b>\$0</b>	<b>\$280,000</b>

Schools	Priority	FY2018	FY2019	FY2020	FY2021	FY2022
All Schools – VFD Pumps & Fans	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
All Schools – Insulate domestic hot water pipes	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
South School – Install New Condensing Boilers	1	\$100,000				
School Main Offices Islanding Doherty, West Elementary	1	\$70,000				
Doherty Middle School – Pneumatic Controls to DDC	2		\$50,000			
Sanborn School – Design to Convert Steam Heat to Hot Water DDC	2		\$80,000			
South School – Pneumatic Controls to DDC	2		\$75,000			
Doherty Middle School – Install New Condensing Boilers			\$100,000	\$100,000		
Collins Center – Design for New Heating System	3			\$80,000		
Shawsheen School – HVAC and Energy Analysis & Design				50,000		
Collins Center – Install New Heating System	4				\$500,000	
<b>Totals</b>		<b>\$220,000</b>	<b>\$355,000</b>	<b>\$280,000</b>	<b>\$550,000</b>	<b>\$50,000</b>

<b>Total Town and Schools</b>		<b>\$420,000</b>	<b>\$430,000</b>	<b>\$430,000</b>	<b>\$550,000</b>	<b>\$330,000</b>
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## **Project Justification and Purpose:**

**Old Town Hall Boiler**– Funds are requested to replace existing boilers with high efficiency condensing boilers at the Old Town Hall building. The existing unit is at the end of its useful life and replacing it should increase efficiency by 15% resulting in an estimated annual cost savings of **\$1,500 per year**.

**Recreation Park Installation of LED Lighting**– Funds will be requested in 2019 to retrofit the lighting at Recreation Park to LED. Proposal in progress to define incentive and payback.

**Old Town Hall HVAC upgrades** – Funds are requested to make upgrades and modifications to the current HVAC systems in the building. Currently, the air conditioning system runs to cool the entire building when only one single area is occupied, resulting in a waste of energy. This money will allow us to segregate the areas into separate systems.

**West Fire Station HVAC and EMS upgrades** – Funds are requested to replace the window air conditioners with a whole building HVAC strategy including energy management system.

**Old Town Hall – LED lighting upgrades** – Funds are requested to replace the existing light fixtures with new LED type fixtures. Some fixtures are period fixtures and an LED equivalent will need to be acquired.

**Youth Center – Heat conversion** – Funds are requested to upgrade portions of the heating system to more energy efficient systems. When the building was built, funds were in adequate and some electric units were installed.

**Red Spring Road – Install EMS** – Funds are requested to install an energy management system at Red Spring Road. This building currently is not connected to the town-wide EMS.

**All Schools – System Wide VFD Pumps and Fans retrofits (in-house installation)** – Funds are requested to continue a system wide program to retrofit existing one-speed drives to variable speed drives. In-house labor will be utilized for this energy saving measure. Utility incentives often cover 50% or more of the cost of each VFD, and paybacks run under 5 years (many under 3 years). The lifecycle of each drive is approximately 15 years. Drives have varying costs due to their variable sizes and uses. As an example, the net cost after rebate of a VFD pump for hot water at South School is approximately \$6,000, with savings of 9,000 kwh/year or approximately \$1,500, resulting in a 4 year payback. We can estimate that if we spend \$100,000 on pumps, and paybacks on these types of projects range between 4 and 5 years, then our annual savings may be more than **\$20,000 per year**.

**All Schools – System Wide Insulation of Domestic Hot Water Piping** – Funds are requested to continue a system wide program to insulate piping. Heat loss can be significant as heated water is delivered to unit heaters, and hot water is delivered for domestic uses. Utility incentives for pipe insulation often cover 50% of the cost of the insulation, with payback estimated at less than 3 years, according to Columbia Gas. We can estimate that if we spend \$25,000 on pipe insulation, and paybacks on these types of projects are approximately 3 years, then our annual savings may be more than **\$8,000 per year**.

**South School – Installation of New Condensing Boilers** – Funds are requested to purchase and install new condensing boilers at South School and to eliminate the oil tanks. Efficiency of the heating system will increase from roughly 75-80% to 95-97%. This should result in energy savings of **\$8,000/year**.

**School Main Offices Islanding – Doherty Middle School and West Elementary School** – Main offices at schools require heat during vacations when the rest of the building may be unoccupied and the boilers run for the entire building even though only the office is being used. Similarly, the Main Offices are occupied much later each day than are the classrooms in some schools. We want to “island”, or separate, the Main Offices heating and cooling from the rest of the buildings, where feasible, to save energy. The systems at Doherty and West Elementary are already in need of repair. This should result in savings of **\$6,000-8,000** per year combined.

**Doherty Middle School – Pneumatic Controls to Direct Digital Controls** – Funds are requested to eliminate the use of pneumatic compressed air powered control mechanisms at Doherty Middle School with digital electronic controls. Pneumatic systems rely on miles of air lines throughout DMS, which leak and require the constant use of a compressor during the heating season. The electronic Direct Digital Control (DDC) system affords better control and accuracy, and eliminates the maintenance of the pneumatic lines.

**Sanborn School – Design Hot Water DDC Heating System** – Funds are requested to design the conversion of the current steam boiler system to a new high efficiency condensing hot water boiler heating system with Direct Digital Controls (DDC). The system may need to be expanded, or expandable, based on future plans for Sanborn School. Design work includes preparation of a *Request for Proposals* for bidding.

**South School – Pneumatic Controls to Direct Digital Controls** – Funds are requested to eliminate the use of pneumatic compressed air powered control mechanisms at South School with digital electronic controls. Pneumatic systems rely on miles of air lines throughout South, which leak and require the constant use of a compressor during the heating season. The electronic Direct Digital Control (DDC) system affords better control and accuracy, and eliminates the maintenance of the pneumatic lines.

**Doherty Middle School – Install New Condensing Boilers** – Funds are requested to replace aged out boilers with new condensing energy efficient units over 2 fiscal years. Savings of 15% of natural gas.

**Collins Center – Design for New Heating System** – Funds are requested to design a new heating system for the Collins Center peripheral rooms, which are currently operating with electric baseboard heat. Efficiencies at AHS may now allow for the expansion of the heating system to encompass those areas. Design will include bid documents.

**Shawsheen School – HVAC and Energy Analysis and Design** – Funds are requested to analyze and design HVAC retrofits for Shawsheen School given its current use. Removal of steam coil and creating heating and ventilation cooling zones, etc.

**Collins Center – Installation of New Heating System** – Funds are requested for the installation, as per design, to convert the peripheral areas of the Collins Center from electric heat to natural gas and connect to the current building system.

**Cost Estimate:**

\$420,000

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 – FY22.

<b>Fiscal Year</b>	<b>Dept. Request/Proposed</b>	<b>TM Recommended /Plan</b>
<b>2018</b>	\$420,000	\$420,000
<b>2019</b>	\$430,000	\$430,000
<b>2020</b>	\$430,000	\$430,000
<b>2021</b>	\$550,000	\$550,000
<b>2022</b>	\$330,000	\$330,000



TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Town Playground Replacements***

P&F-8

**Department Priority Ranking: 1**

*(1 = highest, 2 = next highest, etc.)*

**TM's Rec. for FY18: \$75,000**

**Original Dept. Request: \$75,000**

**Submitted by: Edwin Ataide**

**Department: Plant & Facilities**

**Funding Sources: General Fund Revenue**

**Project Description:**

This is the 1st year of a 5 year replacement project of all Town playgrounds which addresses:

- Design of all the playgrounds
- Replacement of all playground equipment and surfacing
- Replacement of the baseball fields and basketball courts
- ADA compliance, parking and safety

	Priority	FY18	FY19	FY20	FY21	FY22
Penguin Park Playground	1	\$75,000				
Lower Shawsheen Playground	2		\$200,000			
Indian Ridge Playground	3			\$400,000		
Ballardvale Playground Phase 2	4				\$250,000	
West Andover Playground	5					\$200,000
<b>Totals</b>		<b>\$75,000</b>	<b>\$200,000</b>	<b>\$400,000</b>	<b>\$250,000</b>	<b>\$200,000</b>

**Project Justification and Purpose:**

Penguin Park –In 2015, a portion of the park's equipment was replaced, including new swings and structures. Funds are requested to replace the remaining equipment with new. This will complete the park.

Lower Shawsheen Playground - The Lower Shawsheen Playground and park are in need of updating to comply with safety standards and the ADA. The play structures are old and showing signs of wear. The layout of the park requires improvements for accessibility. Funds will be requested in FY19 to bring the equipment and layout of the park into compliance

Indian Ridge Playground – This playground on Cuba Street is very old and little has been done to update the play structures and the park as a whole. Funds will be requested in FY20 to update the equipment and improve the park layout to bring both into compliance with safety standards and the ADA.

Ballardvale Playground – At the 2012 and 2014 Town Meetings, funds were approved to design and begin construction of the Ballardvale Playground as a two-phase project. The first phase was for the design and replacement of all playground equipment and walkways and was completed in 2015. In addition to the funds that were appropriated in 2012, the neighborhood raised \$30,000 to purchase and construct the gazebo. The second phase will address the ballfield and basketball court, as well as the fencing.

West Andover Playground – Plant & Facilities would like to look at the possibility of building a playground in

the West Andover area of town. Currently there is not a public playground that families can walk to in that area.

<b>Cost Estimate:</b>
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\$ 75,000

<b>Town Manager's Recommendation:</b>
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The Town Manager supports funding this request for FY18 – FY22.

FISCAL YEAR	Dept.Request/Proposed	TM Recommended/Plan
2018	\$75,000	\$75,000
2019	\$200,000	\$200,000
2020	\$400,000	\$400,000
2021	\$250,000	\$250,000
2022	\$200,000	\$200,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: Police Vehicle Replacement

POL-1

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$195,000  
**Original Dept. Request:** \$215,000  
**Submitted by:** Patrick Keefe, Chief  
**Department:** Police Department  
**Funding Source:** General Fund Revenue

**Project Description:**

- Replace 5 Police Vehicles
- 4 Marked and 1 Unmarked

**Project Justification and Purpose:**

Generally marked cruisers are replaced every three years and unmarked cruisers and special utility vehicles are replaced every 5-6 years. The determination as to which vehicles are traded in each year is made on a case by case basis depending on the mileage, hours of use and the overall condition of the vehicle. Purchase of these vehicles will allow the Department to continue with the rotational replacement program and avoid major repair costs and downtime.

**Cost Estimate & Timing:**

\$215,000 per year

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Varies by vehicle

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18 - FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$215,000	\$195,000
2019	\$215,000	\$215,000
2020	\$225,000	\$225,000
2021	\$225,000	\$225,000
2022	\$235,000	\$235,000

# Police Vehicles Replacement Schedule - 10/1/16 FY18

Vehicle #	Year	Make/Model	FY18 REQ	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
220	2015	Chevy Tahoe SUV Blk/Whi										
221	2015	Ford Intercep Utility Blk/Whi										
222	2014	Ford Intercep Utility Blk/Whi										
223	2015	Ford Intercep Utility Blk/Whi										
224	2015	Ford Intercep Utility Blk/Whi										
225	2015	Ford Intercep Utility Blk/Whi										
226	2014	Ford Intercep Utility Blk/Whi										
227	2013	Ford Intercep Sedan Blk/Whi										
228	2013	Ford Intercep Sedan Blk/Whi										
229	2014	Ford Interceptor Utility Blk/Whi										
230	2014	Ford Intercep Utility Blk/Whi										
231	2013	Ford Intercep Sedan Blk/Whi										
232	2014	Ford Intercep Utility Blk/White										
233	2013	Ford Intercep Utility Blk/Whi										
240	2012	Ford E250Van White										
241	2000	Ford E350 Van Blue										
250	2016	Chevy Tahoe Blk										
243	2015	Ford F250 Blk/White										
Unmarked	2011	Ford Taurus Blk										
Unmarked	2013	Ford Interceptor Blk										
Unmarked	2009	Ford Crown Victoria Blk										
Unmarked	2008	Ford Crown Victoria Blk										
Unmarked	2014	Ford Explorer SUV Blk										
Unmarked	2015	Ford Explorer SUV Blk										
Unmarked	2012	Ford Interceptor Blk										
INT	2014	Go4 Interceptor Whi										
K-9	2013	Ford Intercep Util Blk/Whi										
MC1/2	2011	Harley Davidson Blk/Whi	Leased	----->								
ATVT-2	2014	Utility Trailer Whi										
ST-2	1998	Utility Trailer Whi										
ST-3	1999	Utility Trailer Whi										
ST-4	2002	Utility Trailer Whi										
MB-4	2010	Utility Trailer Whi										
MB-1	2009	Mini Whi										
MB-2	2001	American Whi										
MB-3	2006	American Whi										
ATV1	2014	Kawasaki Blue										
ATV2	2014	Kawasaki Blue										
BART	2003	Utility Trailer Blk										
ATVT-1	2003	Utility Trailer Blk										
LT 1	2005	Light Trailer Whi										
LT 2	2010	Light Trailer Bro										
SRV	2007	Utility Trailer Whi										

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: Police Firearms/DT Scenario Trainer

POL-2

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec.: \$78,500**  
**Original Dept. Request:** \$78,500  
**Submitted by:** Chief Patrick Keefe  
**Department:** Police Department  
**Funding Source:** General Fund Revenue

**Project Description:**

The Andover Police Department is interested in obtaining a firearms and defensive tactics scenario trainer. This device would allow officers safe and effective training within the station with over 600 different scenarios ranging from motor vehicle stops, domestic encounters, active shooter, mass terrorist events etc.

**Project Justification and Purpose:**

Law enforcement is constantly evolving, this device would allow us to tailor scenarios to the needs of the community to help Andover's Officers better respond to the situations that are presented. The scenarios would incorporate decision making and response training in escalation and de-escalation of force encounters. It is envisioned that this system would not just be used for firearms and defensive tactics training, but that it would ultimately be used for situational based training focusing on enhancing the officer's verbal skills. This system allows training to take place electronically, augmenting the current firearms and defensive tactics training programs without an added cost of ammunition. This system is not designed to eliminate any existing firearms training.

**Cost Estimate & Timing:**

Simulator: \$39,000.00  
Simulator weapons: \$35,000.00  
Total Cost: \$78,500.00

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Annual maintenance costs: \$4500.00- This cost would include a yearly maintenance cost for upkeep of the simulator and simulator weapons. This is a yearly cost to begin after the 12 month initial warrantee expires. This maintenance cost would be incorporated into a yearly budget line.

**Town Manager's Recommendation:**

The Town Manager supports this funding request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$78,500	\$78,500

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: Multi Passenger VAN

POL-3

**Department Priority Ranking: 3**

*(1 = highest, 2 = second highest, etc.)*

**TM's Rec.: \$0**

**Original Dept. Request: \$35,000**

**Submitted by: Chief Patrick Keefe**

**Department: Police Department**

**Funding Source: General Fund Revenue**

**Project Description:**

The Andover Police Department is interested in purchasing a multi passenger Van /Vehicle to be used exclusively by the Community Support Coordinator.

**Project Justification and Purpose:**

The Community Support Services position serves a client system that is made up of a number of individuals. The client system presents itself in a variety of ways; that includes but is not limited to, family members, groups of individuals in recovery, adolescent peer groups, and individuals in need of mental health/ or substance abuse related services. The approach to connecting individuals to services is to work with the whole family system. To date, the Community Support Coordinator has worked with over 78 families and individuals who were in need of mental health and substance abuse services. Families have been in the need to be accompanied to the hospital, courts, and health facilities. In addition, recovery groups have been meeting on a regular basis and have been limited to one space. However, many clients have experienced difficulty with consistently getting to the groups. Our client system often faces multiple challenges as they work on recovery or managing their mental health. Some of these difficulties are focused around common activities such as driving, accessing services, and managing their involvement with multiple systems. A multiple passenger vehicle will aid the community support coordinator in working with the growing client system to access a variety of needs and services.

**Cost Estimate & Timing:**

Vehicle Cost: \$35,000

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Cost of annual service for unit: \$1,800

**Town Manager's Recommendation:**

The Town Manager does not support funding this request

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$35,000	\$0

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: Roadside Message Board

POL-4

**Department Priority Ranking: 3**

*(1 = highest, 2 = second highest, etc.)*

**TM's Rec.: \$20,000**

**Original Dept. Request: \$20,000**

**Submitted by: Chief Patrick Keefe**

**Department: Police Department**

**Funding Source: General Fund Revenue**

**Project Description:**

The Andover Police Department is interested in adding an upgraded roadside message board to help make the community aware of updated happenings in certain areas of town.

**Project Justification and Purpose:**

The Andover Police Department currently has 4 message boards that were purchased over the course of the last 10 years. With age and use, these boards are beginning to break and need repairs. Since the original purchase of these items, technology has become advanced allowing better messaging to be delivered with newer signage.

**Cost Estimate & Timing:**

Cost of the signboard per current MASSDOT Statewide bid pricing: \$19850.00

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Cost of annual service for unit: \$200.00

**Town Manager's Recommendation:**

The Town Manager supports funding this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$20,000	\$20,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Parking Study Implementation***

PRK-1

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:**  
**Original Dept. Request:** \$123,000  
**Submitted by:** Patrick Keefe  
**Department:** Police Department  
Municipal Svcs & PIC  
**Funding Source:** Parking Funds

**Project Description:**

Infrastructure Recommendations for downtown Andover from the 2016 Downtown Parking Study as recommended by the Parking Implementation Committee.

**Project Justification and Purpose:**

In 2015, the Economic Development Council embarked on a comprehensive analysis of Andover's parking situation in downtown and how it potentially affected the growth of downtown Andover. A final report was submitted to the Town of Andover by the consultant Nelson Nygaard in January 2016. The report outlined seven key recommendations that would improve the parking utilization in downtown Andover.

Andover has an opportunity to implement an improved parking management system that responds to the identified needs and concern of its users. It is important for the users of downtown (i.e. current and future business owners, customers, visitors, employees, etc.) to anticipate that there is available convenient parking. New businesses take parking into consideration when deciding on a new location. Customers take parking into consideration when deciding where to eat or shop. The Economic Development Council strongly believes that teaming with the Department of Municipal Services and the Andover Police Department, positive changes can be made to downtown that will increase customers, assist with business retention and stimulate downtown growth.

Findings that require funding through the Capital Improvement Program include the parking payment technology (it is mismatched with appropriate parking strategies and some payment systems are outdated), wayfinding (signage is inconsistent and substandard), and creating additional parking spaces (may be created with a reconfiguration of the existing Park Street East parking lot).

Specifically, the recommendations in the Downtown Andover Parking Study include:

- Recommendation 1: Provide Clear Signage and Information. Andover will provide clear signage and information to its visitors with better wayfinding signage. Many communities with downtowns like Andover, have wayfinding signage which uses visual information to create a positive first impression for visitors and foster a sense of place for residents. Studies show that clear wayfinding for parking, shopping and sights improves pedestrian traffic in downtowns, encourages more dollars spent and increases tourism by directing visitors to nearby points of interest.
- Recommendation 4: Customer Friendly Parking Technology. Paying for parking should be the least difficult aspect of visiting downtown. Parking payment technology should be consistent and



user friendly in all areas wherever payment is required.

- Recommendation 5: Strategic Supply Optimization. Andover currently has several municipal parking lots. One in particular, the Park Street East lot, could be reconfigured and restriped to be used more efficiently adding public parking spaces in the downtown. Each parking space added could add approximately \$1200 per space per year to the parking revenues at the same time adding to the inventory of public parking spaces.
- Recommendation 6: Improvements to the Downtown Environment. Simple improvements such as installing additional bike racks around downtown will help to promote downtown as accessible by other means of transportation and potentially free up parking spaces.

<b>Cost Estimate &amp; Timing:</b>
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Recommendation 1: \$40,000 for new wayfinding and directional signs to help identify parking locations and key local destinations in FY18.

Recommendation 4: \$150,000 over three years for replacement and new parking technology (50k in FY18, FY19, and FY20). Refer to proposal from Ventek for cost estimate.

Recommendation 5: \$125,000 over five year for reconfiguring and improving parking lots (25k each year)

Recommendation 6: \$8,000 (four bicycle racks including installation in FY18.

Total in FY18: \$123,000

Total project cost: \$323,000

<b>Estimated Annual Cost or Savings of Operation and Maintenance:</b>
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Based on today's rates, each parking space in the municipal lot that is created, could generate at least \$500 per space per year in revenue (based on the existing Parking Sticker Program rates).

<b>Town Manager's Recommendation:</b>
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Town Manager supports this request for FY18-FY22.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$123,000	\$123,000
2019	\$75,000	\$75,000
2020	\$75,000	\$75,000
2021	\$75,000	\$75,000
2022	\$75,000	\$75,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***School Projects – All Schools***

**SCH-1**

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \*\*  
**Original Dept. Request:** \$ 625,000  
**Submitted by:** Sheldon H. Berman, Ed.D./  
Chris Cronin, Director  
**Department:** School and  
Municipal Services  
**Funding Source:** General Fund Revenue

<b>Project Description:</b>
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	Priority	FY18	FY19	FY20	FY21	FY22
ADA Compliance (Handicap Accessibility)	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Energy Conservation	1	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Engineering	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Asbestos Survey and Remediation	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Carpet and Flooring Replacement	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Electrical Upgrades for New Technology	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Door (Interior and Exterior) Hardware and Installation	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Fence and Guardrail repairs	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Sidewalk Repairs and Replacements	1	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
504 & IEP Compliance (Individual Educational Plan)	1	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
HVAC/Energy Management Upgrades	1	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Painting and Parking Lot Striping	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Plumbing Upgrades	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Refinish Gym and Stage Floors	1	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Bathroom Partitions	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Shade Replacements	1	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Smoke Detector and Fire Alarm repairs	1	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
School Playgrounds	1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Security Upgrades	1	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
Oil Tank Inspections and Maintenance	1	\$10,000				
Oil Tank Removals	1	\$40,000				

<b>Totals</b>		<b>\$625,000</b>	\$575,000	\$575,000	\$575,000	\$575,000
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**Project Justification and Purpose:**

ADA Compliance – Funds are requested to support the Town Master Plan to address handicap accessibility requirements in all school buildings.

Energy Conservation – Funds are requested to implement further energy conservation measures in all school buildings.

Engineering – Funds are requested for professional engineering fees to implement capital projects.

Asbestos Survey and Remediation – Funds are requested to continue compliance with the AHERA law and asbestos removal.

Carpet and Flooring Replacement – Funds are requested to replace carpeting and flooring in all school buildings, as it relates to addressing health and safety issues, as problems arise.

Electrical Upgrades for New Technology – Funds are requested to provide additional electrical outlets and power to service additional needs, driven by new technology in our schools. For example, some of our older schools still have classrooms with only one electrical outlet.

Door & Door Hardware Replacement – Funds are requested to continue the ongoing program of replacing aging interior and exterior doors, and door hardware, on all school buildings. Some existing door frames have rot and will become a security issue if this is not corrected.

Fence and Guardrail Repairs – Fences and guardrails on school sites frequently sustain damage during the year. Funds are requested for repair or replacement as necessary, and to install new fences when the need arises.

Sidewalk Repairs and Replacements – Funds are requested to repair and/or replace sidewalks on school sites when necessary due to deterioration, heaving and other types of winter damage.

504 & IEP Compliance (Individual Educational Plan) – (Mandated IEP Building Modifications) – Funds are requested to provide building modifications on an as-needed basis when a staff member, or a student's IEP plan, requires upgrades or modifications to the classrooms or offices to accommodate for hearing impairment or sight issues. These mandates come up without advance notice and require immediate attention.

HVAC/Energy Management Upgrades – Funds are requested to upgrade heating, ventilating and air conditioning equipment, and control system components.

Painting and Parking Lot Striping – Funds are requested to repaint faded parking lot striping and major exterior building painting.

Plumbing Upgrades – Funds are requested to replace aged and obsolete plumbing fixtures and systems with new water saving units.

Refinishing Gymnasium and Stage Floors - Funds are requested to screen and refinish approximately 65,000 square feet of gymnasium and stage floors. If this is not done on an annual basis, more extensive sanding and refinishing will be necessary, at a substantially higher cost.

Bathroom Partitions – Funds are requested to replace rotted metal bathroom partitions with new phenolic partitions as part of an ongoing program.

Shade Replacements – Funds are requested to replace shades and blinds in all schools on an *as needed* basis. Many of the blinds and shades in the buildings are old and have dried out. We have been replacing them with a newer, clutch roller type shade, which is much more durable and safer to use.

Smoke Detector and Fire Alarm repairs – Smoke detectors are required to be replaced every ten years. Funds are requested to replace smoke detectors in a number of schools that are coming due in the next few years. In addition, as our fire alarm panels age they are requiring more repairs.

School Playgrounds – Funds are requested to begin replacing aged playground structures in various schools. Many of the older playground structures will need to be removed during the next five years due to safety issues caused by deterioration. Funds will also be used to add to the wood carpet mulch play surfacing as it needs to be enhanced each year.

Security Upgrades- Funds are requested to add access control and CCTV cameras in all school buildings as part of an ongoing program. As the existing systems are expanded, funds need to be increased to cover maintenance.

Oil Tank Inspections and Maintenance – Due to recent regulations, all above and below grade oil tanks are required to be inspected and repaired by a third party company prior to state inspections. Funds are needed in order to comply with these recent regulations. If the current plan of no longer burning dual fuel continues, within the next two to three years we will no longer need funding for this item on School CIP requests.

Oil Tank Removals – Funds are requested to remove all of the above and below ground oil tanks. We have begun replacing all of our boilers with high efficiency gas boilers and are discontinuing the use of dual fuel. The removal of oil tanks at School properties are being phased over multiple years. For this reason we need to keep the request for funds for inspections and maintenance on our CIP through FY18.

<b>Cost Estimate:</b>
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\$625,000

<b>Estimated Annual Cost of Operation and Maintenance:</b>
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<b>Timing and Financing:</b>
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<u>Fiscal Year</u>	<b>Dept. Request/Proposed</b>	<b>TM Recommended/Plan</b>
<b>2018</b>	\$625,000	**
<b>2019</b>	\$575,000	
<b>2020</b>	\$575,000	
<b>2021</b>	\$575,000	
<b>2022</b>	\$575,000	

\* Savings indicated by parentheses ( ).

\*\* The Town Manager supports a total of \$1,495,643 of General Fund Revenue allocated between SCH-1, SCH-2, SCH-9 and IT-2 for FY18.

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***School – Projects by Building***

SCH-2

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:** \*\*\*  
**Original Dept. Request:** \$392,500  
**Submitted by:** Sheldon H. Berman, Ed. D./  
Chris Cronin  
**Department:** School and P&F  
**Funding Source:** General Fund Revenue

**Project Description:**

	Priority	FY18	FY19	FY20	FY21	FY22
AHS Painting	1	\$30,000	\$35,000	\$35,000	\$35,000	\$35,000
AHS Room 116 Sinks	1	\$20,000				
AHS HVAC Study	1	\$30,000				
AHS Foyer Display Cases	1	\$25,000				
AHS Collins Center Instrument Cabinets	1	\$32,500				
AHS Student ID badging system	2		\$40,000			
DMS Shades *	1	\$20,000	\$20,000	\$20,000		
DMS Repaint all Classrooms *	2		\$35,000	\$35,000	\$35,000	\$35,000
DMS Carpet Replacement *	2		\$25,000			
DMS Exterior Windows *	2		\$35,000		\$35,000	
Shawsheen Windows – Replace *	1	\$10,000	\$20,000	\$20,000	\$20,000	\$20,000
Shawsheen Exterior Painting *	1	\$40,000				
Shawsheen Hallway Painting *	2		\$20,000	\$20,000	\$20,000	
South Elementary School Air-Lock Doors	1	\$45,000				
South Elementary Stage Flood Lights	1	\$15,000				
South Elementary School Dome Skylights	2		\$10,000			
West Elementary Renovations *	1	\$25,000	\$65,000	\$50,000		
West Elem. Restroom Partitions *	1	\$15,000	\$15,000	\$15,000		
West Elementary Crawlspace *	2		\$30,000			
Wood Hill/High Plain Windows	1	\$10,000	\$50,000	\$50,000	\$50,000	\$50,000
Wood Hill/High Plain Tile	1	\$35,000				
Wood Hill/High Plain Turf	1	\$40,000				
<b>Totals</b>		<b>\$392,500</b>	<b>\$400,000</b>	<b>\$245,000</b>	<b>\$195,000</b>	<b>\$140,000</b>

\* Please note that most CIP FY2017 requests for projects at Doherty Middle School, West Elementary School and Shawsheen Elementary School were pushed out to CIP FY2018 and were contingent upon receiving the Comprehensive Facilities Master Plan that came out in June, 2016.

**Project Justification and Purpose:**

Andover High School Painting – Funds are requested to paint all of the classrooms, offices and hallways throughout the building. Some of these areas have not been painted since the 1995 renovation project. A six-year phased plan began in FY2017 and FY2018 requested funds are for the second of this six-year plan.

Andover High School Room 116 Sinks – Funds are requested to repair a sink and to add two sinks to room 116. The existing sink is worn and installing two additional sinks in the space will benefit the class. Funds were requested, but cut from CIP FY2017.

Andover High School HVAC Study – Funds are requested to study the feasibility of expanding the existing air conditioning system into the classrooms. Those classrooms that have no windows will be of priority. Funds were requested, but cut from CIP FY2017.

Andover High School Foyer Display Cases – Funds are requested to install display cases in the foyer area for display and recognition of student work. Funds were requested, but cut from CIP FY2017.

Andover High School Collins Center Instrument Cabinets – Funds are requested to purchase and install new Wenger instrument cabinets to house band and orchestra instruments. The current cabinetry is outdated, provides limited safety for the instruments and offers insufficient storage, resulting in a space that is cluttered and has sometimes been in violation of fire code. The Wenger cabinetry is made specifically for musical instruments and will allow for each student to lock his or her instrument, reducing the likelihood of theft, such as was experienced last year. This cabinetry is an efficient way to store and secure the equipment, leaving the performing arts classrooms more open for use by rental groups.

Andover High School Student ID badging system – Funds are requested to install a student id badging system to increase security and assist in tracking late arrivals and attendance. System will interface with current attendance software.

Doherty Middle School Shades – Funds are requested to replace the shades in the classrooms. Due to safety measures recently implemented, shades are required on all windows, doors and sidelights, to seal off visibility into each room in the event of an emergency in the school.

Doherty Middle School - Repaint all Classrooms – Funds are requested to repaint all classrooms. The classrooms are showing their age with peeling paint and plaster and some areas have water stains from previous leaks that occurred before the roof was replaced.

Doherty Middle School Carpet Replacement – Funds are requested to replace the carpet on the handicap ramp leading to the second floor. The carpet has become stained and worn and is beginning to develop an odor that regular shampooing cannot remove.

Doherty Middle School Exterior Windows – Funds are requested to repair or replace the exterior windows in the glass atriums. The seals in the glass have been failing more each year obscuring visibility.

Shawsheen Elementary School Window Replacement – Funds are requested to replace the windows. These funds were requested, but cut from CIP FY2014, CIP FY2015, CIP FY2016 and CIP2017. Some of the aluminum windows have worn tracks, which allow the sash to fall inward, on top of the person opening it. There are currently wooden pieces in place to prevent this from occurring.

Shawsheen Elementary School Hallway Painting – Funds are requested to repaint all hallways on all three floors of the school building. The paint in these areas is old and is peeling in various places.

Shawsheen Exterior Painting – Funds are requested to paint the exterior wood windows and doors. The painted surfaces are peeling and deteriorating. The existing paint contains lead, which will require abatement by a company specializing in this type of work.

South Elementary School Air-lock Doors – Funds are requested to install air-lock doors at the entrance near the rear gymnasium hall. These funds were requested, but cut from CIP FY2014, CIP FY2015, CIP FY2016 and CIP FY2017. This is the only access door to the outside of the building from the rear foyer that does not have an inner door to break the cold from entering the building.

South Elementary Stage Flood Lights – Funds are requested to replace the existing lighting fixtures and bulbs with newer led technology. Existing fixtures burn through bulbs often requiring frequent replacement. Led technology has a longer life span. Funds were requested, but cut from CIP FY2017.

South Elementary School Dome Skylights – Funds are requested to replace the domes in the skylights. These funds were requested, but cut from CIP FY2014, CIP FY2015, CIP FY2016 and CIP FY2017. The outer domes are becoming cracked and have started leaking into the building.

West Elementary Renovations – Funds are requested to renovate the clinic and faculty restrooms. These funds were requested, but cut from CIP FY2014, CIP FY2015, CIP FY2016 and CIPFY17. These restrooms have not been updated since the original installation and are really showing their age with missing tile, cracks and worn out fixtures.

West Elementary School Restroom Partitions – Funds are requested to replace the partitions in the Grade 5 restrooms. These partitions have become warped, stained and the hardware does not open properly.

West Elementary School Crawlspace – Funds are requested to create an outside access to the crawlspace in B-Pod. Currently the only way to access the area beneath B-Pod is by crawling beneath and over pipes. This poses a problem for maintenance staff when they need to bring filters or replacement equipment into the space.

Wood Hill / High Plain Windows – Currently there are numerous windows at Wood Hill/High Plain Schools that were not designed to open. Funds are requested to begin the remedy for this situation; the installation of operable windows, which will allow much more ventilation into the building. The FY2018 funds are being used to test whether these windows can be retrofitted and to begin the installation of such.

Wood Hill / High Plain Tile – Funds are requested to replace the remaining carpet in both main offices with VCT floor tile. In FY14 the main areas were replaced. This will allow the rest of the office space to be done. Funds were requested, but cut from CIP FY2017.

Wood High/High Plain Turf – Funds are requested to install artificial turf along three areas of the playgrounds. The targeted areas are in poor condition and the growth of grass has been unsuccessful. The result is mud instead of turf in the areas where the kids play, and the mud is then tracked into the building. Funds were requested, but cut from CIP FY2017.

<b>Cost Estimate:</b> \$392,500
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FISCAL YEAR	CAPITAL EXPENSES	ANNUAL MAINTENANCE EXPENSES
2018	\$392,500	**
2019	\$400,000	
2020	\$245,000	
2021	\$195,000	
2022	\$140,000	

\*\* The Town Manager supports a total of \$1,495,643 of General Fund Revenue allocated between SCH-1, SCH-2, SCH-9 and IT-2 for FY18.

**TOWN OF ANDOVER**  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

**PROJECT REQUEST: *Textbooks***

**SCH-3**

**Department Priority Ranking:**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18:**  
**Original Dept. Request:** \$519,300  
**Submitted by:** Sheldon Berman, Ed/D  
Nancy A. Duclos, PhD  
**Department:** School, Textbook Adoption  
**Funding Source:** General Fund Revenue

<b>Project Description: Textbooks</b>
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The Andover Public School District, utilizing a blended environment where text and technology are both necessary and appropriate is committed to maintaining the most current programmatic materials that align to the Massachusetts State Frameworks. The re-establishment of the program review cycle (PRC) process will aid in identifying what materials (electronic and/or paper) need to be purchased and the extent to which this blended environment is most beneficial to student learning.

	Priority	FY18	FY19	FY20	FY21	FY22
<b>Literacy Grades K – 5</b> DIBELS Reading Assessment (Includes testing booklets and technology based student growth applications)		\$11,000	\$11,000	\$11,000	\$11,000	\$11,000
<b>Literacy Grades K – 5</b> Computer Adaptive Reading Assessment Tool (e.g. Iready-- training and approx.. \$6.00 per child)		\$18,750	\$18,750	\$18,750	\$18,750	\$0
<b>Literacy Grades K – 5</b> Guided Reading texts to support social studies and science K-5		\$30,000		\$30,000	\$30,000	\$0
<b>Literacy Grades K – 5</b>  New Reading Program based on results of program evaluation			\$660,200			
<b>Literacy Grades K - 5</b> Word Study Program for Phonics and Fluency in Grades 4 and 5		\$50,000	\$0	\$0	\$0	\$0



	Priority	FY18	FY19	FY20	FY21	FY22
<b>ELA Middle 6 – 8</b> Common texts, new edition 2 6th grade 1 for 7th and 1 for 8th avg. 15 each, 1200 texts as a result of the 6 – 12 program evaluation		\$18,000	\$0	\$0	\$0	\$0
<b>ELA High 9-12</b> Common texts, new editions avg. 15 each, 2000 texts as a result of the 6 – 12 program evaluation		\$30,000	\$0	\$0	\$0	\$0
<b>Math -Pre-calculus</b> Curriculum Review in 2017/18 for 2018/19 adoption. "Quote is based on the purchase of digital licenses for 6 years. 35 licenses @ \$125"		\$0	\$140,000	\$0	\$0	\$0
<b>Math Calculus –</b> Curriculum Review in 2018/19 for 2019/20 adoption. "Quote is based on the purchase of digital licenses for 6 years. 300 licenses @ \$200"		\$0	\$0	\$60,000	\$0	\$0
<b>Math Statistics –</b> Curriculum Review in 2019/20 for 2020/21 adoption. "Quote is based on the purchase of digital licenses for 6 years. 350 licenses @ \$150"		\$0	\$0	\$0	\$70,000	\$0

	Priority	FY18	FY19	FY20	FY21	FY22
<b>Science Middle 6 – 8</b> (Science Fusion 5-yr license ending June 2021) (current contract \$150,000 - projected cost includes expected price and enrollment increases)		\$0	\$0	\$0	\$175,000	\$0
<b>Science Physical Science 9</b> (new resource needed) Subscriptions needed for at least 475 students @\$150 each for 5-yr		\$0	\$0	\$0	\$0	\$0
<b>Science Biology 10</b> (new resource needed) Subscriptions needed for at least 475 students @\$150 each for 5-yr		\$71,250	\$0	\$0	\$0	\$0

	Priority	FY18	FY19	FY20	FY21	FY22
<b>Science Chemistry 11</b> (new resource needed) Subscriptions needed for at least 450 students @\$150 each for 5-yr – remaining funds needed		\$3,750	\$0	\$0	\$0	\$0
<b>Science Physics 12</b> (new resource needed) Subscriptions needed for at least 100 students @\$150 each for 5-yr		\$0	\$15,000	\$0	\$0	\$0
<b>Science AP Biology</b> (Biology In Focus text with online resource to expire 2021) Subscriptions needed for at least 125 students @ \$150 each		\$0	\$0	\$0	\$18,750	\$0
<b>Science AP Chemistry</b> Subscriptions needed for at least 75 students @\$150 each		\$0	\$11,250	\$0	\$0	\$0
<b>Science AP Physics C</b> Subscriptions needed for at least 25 students @\$150 each		\$3,750	\$0	\$0	\$0	\$0
<b>AP Physics 1</b> Subscriptions needed for at least 100 students @\$150 each		\$0	\$15,000	\$0	\$0	\$0
<b>Other Science Programs</b> Subscriptions and materials		\$25,000	\$45,000	\$0	\$0	\$0
	Priority	FY18	FY19	FY20	FY21	FY22
<b>Social Studies Middle School Grade 6</b> Ancient Civ and Geography (print and digital copies- valid through 2024)		\$47,500	\$0	\$0	\$0	\$0
<b>Social Studies Middle School Grade 8</b> US History (Student and teacher subscriptions – 6 yr. license)		\$46,000	\$0	\$0	\$0	\$0
<b>Social Studies – Grade 10</b> Modern World New Course as a result of the program Evaluation (Student and teacher subscriptions – 6 yr. license)		\$45,000	\$0	\$0	\$0	\$0

	Priority	FY18	FY19	FY20	FY21	FY22
<b>Social Studies – Grade 11</b> US History (Student and teacher subscriptions – 6 yr. license)		\$45,000	\$0	\$0	\$0	\$0
<b>Social Studies – Grades 11 – 12</b> AP European History(Student and teacher subscriptions – 6 yr. license)		\$0	\$13,000	\$0	\$0	\$0
<b>Social Studies – Grades 11 – 12</b> AP European History(Student and teacher subscriptions – 6 yr. license)		\$0	\$14,000	\$0	\$0	\$0
	Priority	FY18	FY19	FY20	FY21	FY22
<b>World Language Grades 6 – 9 Spanish</b> Subscription Renewal		\$0	\$37,000	\$0	\$0	\$0
<b>World Language Grade 9 Spanish</b> Subscription Renewal		\$0	\$0	\$6,200	\$0	\$0
<b>World Language Grade 10 Spanish</b> Subscription Renewal		\$0	\$4,800	\$0	\$0	\$0
	Priority	FY18	FY19	FY20	FY21	FY22
<b>The Arts – Elementary</b> Upright Piano – West El		\$9,500				
<b>The Arts – Elementary</b> Kiln and Ventilation HPE & South (6,000 ea)			\$12,000			
<b>The Arts – Middle</b> Wenger Cabinetry – Band Rooms			\$40,000			
<b>The Arts – Middle</b> Technology Music Studio		\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
<b>The Arts – Middle</b> Kiln & Ventilation WH & WMS			\$12,000			
<b>The Arts – Middle</b> Upright Pianos WMS & DMS			\$19,000			
<b>The Arts – High</b> Upright Piano AHS Band Room		\$9,500				
<b>The Arts – High</b> Grand Piano Collins Center				\$50,000		
<b>The Arts – High</b> Adobe Licenses		\$2,800	\$2,800	\$2,800	\$2,800	\$2,800
	Priority	FY18	FY19	FY20	FY21	FY22
<b>Special Education</b> Lexia Reading Tiered Support		\$50,000	\$50,000	\$50,000	\$50,000	
<b>TOTAL</b>		\$519,300	\$1,123,300	\$231,250	\$378,800	\$16,300

**Project Justification and Purpose:**

Andover Public Schools remains committed to ensure that all instructional programs align to standards, reflect currency, and provide our students with an engaging educational experience. The six-year curriculum and program review cycle begins with a two-year evaluation of product, process, and pedagogy. Based on these results, recommendations are made for a change of program, to upgrade the current program, or to make no change at all. The next two years of the cycle represents an implementation phase, where teachers and administration are full committed to deliver the recommended program with fidelity. The last two years in the cycle are spent making adjustments to fill in gaps or overlaps that may occur. Then the cycle begins anew. Most textbooks and programs go through significant changes within that 6-year period. A program review has been completed in the areas of K – 8 Mathematics (2012-14), K – 5 Science (2013 – 15), and 6 – 12 Social Studies (2014 – 16). We are currently beginning our program evaluation for Literacy and are in year 1 of the evaluation cycle for ELA at the secondary level. Moving forward, we hope to continue with the cycle with Art, PE, and World Languages.

Many of the textbooks used in classrooms are print versions but we are ever vigilant to research and pilot electronic and interactive texts. Today's comprehensive programs offer a blended environment where students and teachers have print versions of the text, online access to additional materials, online access to interactive activities and electronic assessment systems that allow teachers to better analyze student data. The programs are based on scientific research and include pedagogical approaches and instructional strategies that enable Andover students to meet and master local, state, and national standards. The format and the breadth of the instructional materials and programs have not yet been standardized and are dependent upon the publisher. In addition, textbooks represent a one-time purchase, while on line and interactive texts are a yearly subscription cost per user.

These instructional materials address the full range of learners in Andover's classrooms, with specific attention given to the learning needs of advanced learners, English learners, special education students, and students with learning difficulties.

Lack of textbooks and other instructional materials that reflect MA current academic standards can be a factor in litigation charging a school system with failure to provide its students with the "opportunity to learn" the knowledge and skills for which they are entitled and for which they are being tested through the PARCC exam.

**Cost Estimate: \$519,300**

Town Manager does not support this request.

<b>FISCAL YEAR</b>	<b>CAPITAL EXPENSES</b>	<b>ANNUAL MAINTENANCE EXPENSES</b>
<b>2018</b>	\$519,300	
<b>2019</b>	\$1,123,300	
<b>2020</b>	\$231,250	
<b>2021</b>	\$378,800	
<b>2022</b>	\$16,300	

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: **Major School Projects**

SCH-5

**Department Priority Ranking: 1**  
(1 = highest, 2 = next highest, etc.)

**TM's Rec. for FY18: \$770,000**  
**Original Dept. Request: \$770,000**  
**Submitted by:** Sheldon H. Berman, Ed.D./  
Chris Cronin  
**Department:** School and P&F  
**Funding Source:** General Fund Borrowing

**Project Description:**

	Priority	FY18	FY19	FY20	FY21	FY22
All Schools Installation of audio enhancement systems in all classrooms	1	\$200,000	\$483,000	\$375,000		
AHS Collins Center replacement of stage curtains	1	\$100,000				
AHS Collins Center Painting of Auditorium Walls and Clouds	2		\$100,000			
Doherty School Generator replacement	1	\$180,000				
Doherty School Update of Digital Learning Commons *	3			\$50,000	\$50,000	
Doherty School Purchase of Desks, Chairs, Lab Tables and Stools *	3			\$50,000	\$50,000	
Doherty School Update HVAC in Main Office *	3			\$175,000		
Doherty School Veterans Memorial Hall Auditorium Air Conditioning *	3			\$300,000		
Doherty School add AC in Special Education Suite *	5					\$175,000
Doherty School Update of all Restroom Fixtures *	5					\$100,000
Shawsheen School Generator *	2				TBD	
West Elementary Window Replacement *	4				\$100,000	\$100,000
West Middle Café Ceiling	4				\$100,000	
Wood Hill/High Plain Kitchen Floor	1	\$190,000				
Wood Hill/High Plain Rear Access Road Retaining Wall	1	\$100,000				
Wood Hill/High Plain Field Access	2		\$350,000			
School System – Locker Replacements	4				\$100,000	\$100,000
<b>Totals</b>		<b>\$770,000</b>	<b>\$933,000</b>	<b>\$950,000</b>	<b>\$400,000</b>	<b>\$475,000</b>

\* Please note that most of the CIP FY2018 requests for projects at Doherty Middle School, West Elementary School and Shawsheen Elementary School were pushed out from CIP FY2017 contingent upon receiving the Comprehensive Facilities Master Plan that came out in June 2016.

**Project Justification and Purpose:**

All Schools installation audio enhancement system – Funds are requested to purchase and install audio enhancement systems in all classrooms. Each year we are required to install acoustical treatments to assist hearing impaired children in the classrooms. This system will allow for all the children in the classroom to hear the teacher perfectly. If funds are approved, the first schools to have this system installed will be the Wood Hill and High Plain schools. Bancroft Elementary, South and Sanborn would be scheduled for 2019, followed by Andover High School in 2020.

Andover High School Collins Center replacement of stage curtains – Funds are requested for the replacement of the Collins Center black masking curtains. The curtains are original to the building and are truly beginning to show their age despite the countless hours that have been spent sewing and mending them.

Andover High School Collins Center Painting of Auditorium Walls and Clouds – Funds are requested to paint the interior walls and the ceiling clouds in the auditorium. These have not been painted since the building was constructed in the 1980's and the paint is showing its age.

Doherty School Generator replacement – Funds are requested to replace the existing building back-up power generator. This generator has failed numerous times and has required a multitude of repairs to all aspects of the unit. It is the opinion of Plant & Facilities and the service company that this generator cannot be counted on 100% in the event of an emergency.

Doherty School Update of Digital Learning Commons – The current configuration of space and furnishings do not meet the needs for student learning. Access to the classroom locations within the space often interferes with classes or groups that are using the larger area (and vice-versa). Work and learning stations don't provide for flexible use. Current tables are large, wooden and heavy and are not conducive to moving the arrangement in order to meet student group or individual needs. Chairs are also wooden, are too large for some of our smaller students, and too small for some of our larger students. Both chairs and tables frequently need to be repaired due to breakage. Upgrades will be phased over two years.

Doherty School Purchase of Desks, Chairs, Lab Tables and Stools - Current furnishings are old and are breaking at a rate faster than the school can afford to repurchase. Students have been trapped in the combined desk/chair units when the units snap. Stool legs are separating at times, causing students to fall to the floor. Custodians and Plant & Facilities staff have made repairs, including spot welding, however the integrity of the furnishings is not the same. Upgrades will be phased over two years.

Doherty School Update HVAC in Main Office - Update and/or replace current units in the main office suite; main office, conference room, principal and assistant principals' offices. Current units are more than 10 years old and provide heat and air conditioning for the office suite. The units are loud and interfere with hearing/speaking on the phone, they are not energy efficient, and when cooling, they generate excess moisture and puddles on the floor.

Doherty School Veterans Memorial Hall Auditorium Air Conditioning – Funds are requested for the installation of AC in the Memorial Hall Auditorium. Originally part of the renovation project of Memorial Hall, this has been part of CIP. The greater Andover community uses the Memorial Hall Auditorium, including, but not limited to, the Senior Center, Town Officials, Veteran's organizations and the Doherty Middle School.

Doherty School add Air Conditioning in the Special Education Suite - Install AC units in the special education suite of four spaces. The suite includes the offices of the ETF and the School Psychologist, and also houses locked special education and student cumulative files. It is also used for special education parent meetings and student testing. There is currently no cooling system in place. Many of the staff work beyond the school year into the summer.

Doherty School Update of all Restroom Fixtures – Funds are requested to replace all bathroom fixtures with efficient automatic sinks, toilets, urinals, soap dispensers. The restrooms in DMS have old fixtures that are prone to leaking, clogging, not working, and falling off the wall.

Shawsheen School Generator – Funds will be requested in FY18 to replace the emergency generator at the school with a new one, to be located outside the building. The current generator is a water-cooled system, and uses domestic water to cool the motor. This type of system is no longer allowed. This replacement will require a complete upgrade to the building’s emergency electrical panels and system.

West Elementary Window Replacement – Funds are requested to continue replacing the single pane windows throughout the building with energy efficient double pane glass and frames. This replacement project was originally started approximately ten years ago, however, after only 25% of the windows were replaced, subsequent funding was cut from CIP requests and the project was never completed.

West Middle School Café Ceiling – Funds are requested to replace the ceiling in the Café. These funds were requested, but cut from CIP FY2014 and CIP FY2015. The existing ceiling is a splined ceiling, which is sagging in numerous areas. This type of ceiling does not allow for easy access to conduct repairs to plumbing, electrical and HVAC equipment. In addition there is asbestos pipe insulation above this ceiling and if any portion of the ceiling falls down this could cause a health hazard.

Wood Hill/High Plain Kitchen Floor – Funds are requested to re-coat the existing epoxy floor with a new epoxy coating. The existing floor has cracked in numerous places causing health concerns with possibility of bacteria forming in the cracks.

Wood Hill/High Plain Rear Access Road Retaining Wall – Funds are requested to make repairs and build a retaining wall along the rear access road behind the building. Every year material has to be placed against the roadway along the slope to repair washouts, which causes the guard rail to lean over the embankment. This is a safety concern as we could potentially lose the roadway down the slope.

Wood Hill/High Plain Field Access – Funds are requested to install exterior stairs to access the soccer field from the High Plain Elementary School playground. To gain access to the soccer field, the students at High Plain must travel the entire length of the school site. At recess and lunch break there is not enough time to allow for them to do this. In addition, this new access to the field must be ADA compliant, so a ramp system must also be installed.

School System Locker Replacements – The lockers in some of our school buildings are too small to hold students’ required learning materials and belongings. These lockers are also becoming too old to be repaired efficiently as the old style locks and other hardware are becoming more difficult to obtain when repairs are needed. Funds are requested to replace the lockers throughout Doherty Middle School and West Middle School. The first phase of the Doherty Middle School replacement was funded in FY13 and that phase is complete. Funds for replacement of the remaining lockers at Doherty Middle School, and to replace the lockers at West Middle School, have been requested, but not approved, in CIPs FY14, FY15, FY16 and FY17.

<b>Cost Estimate:</b> \$770,000
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The Town Manager supports this request for FY18-FY22.

FISCAL YEAR	Dept. Requested/Proposed	TM Recommended
2018	\$770,000	\$770,000
2019	\$933,000	\$933,000
2020	\$950,000	\$950,000
2021	\$400,000	\$400,000
2022	\$475,000	\$475,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: **AHS Library/Media Center Renovations**

**SCH-7**

**Department Priority Ranking: 1**

*(1 = highest, 2 = second highest, etc.)*

**TM's Rec.:**

**Original Dept. Request: \$3,000,000**

**Submitted by:** Sheldon H. Berman, Ed. D/  
Edwin Ataide

**Department:** School

**Funding Source:** General Fund Borrowing

<b>Project Description:</b>
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The Media Center project includes renovations within the existing space to create a twenty-first century Digital Commons.

<b>Project Justification and Purpose:</b>
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As described in the High School Feasibility Study prepared by Drummey, Rosane Anderson, Inc. (DRA) dated May 22, 2014, DRA recommended redesign of the current Library/Media Center into a more flexible space to support current and future learning approaches. The role of the Media Center has changed from what it once was. It is being transformed from a repository of printed materials into a "Digital Commons." More space is needed for collaborative work in groups of different sizes, from small groups to whole classes, often with access to technology to capture and manipulate material from multiple sources, such as books, newspapers, videos, and web sites. The Media Center has become a place to foster critical thinking, collaboration, and creativity.

To help promote this transformation, the proposed Media Center project includes the following specific features:

- Increase visibility into the Media Center (MC).
- Increase access to the MC (include more entrances).
- Increase area available to the MC (relocate the Learning Center, and the open computer lab).
- Repurpose the mezzanine offices for MC use.
- Introduce natural light and more awareness of the outdoors (via skylights or clerestories).
- Create spaces for collaboration and spaces for group presentations (several conference-size to Classroom-size zones).
- Reduce space for the book collection (stacks).
- Improve the acoustics (separate group spaces, reduce room reverberation and echoes).
- Provide for greater technology use in the MC (data drops, Wi-Fi hot spots, charging stations, shared Screens, printers, and secure equipment storage).



<b>Cost Estimate &amp; Timing:</b>
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Construction cost	\$2,056,030
Furniture and Equipment	\$225,000
Fees, testing, soft costs	\$228,100
Owners Contingency	<u>\$188,180</u>
Total project cost	\$2,697,310
Alternate 1.	\$34,100
Alternate 2.	<u>\$46,050</u>
Total Alternate cost	\$80,150
Total project cost with alternates	\$2,777,460
Additional design costs	\$100,000
Escalation of 4% for construction in 2018	<u>\$115,098</u>
Total Project cost	\$2,992,558

March 2016- Contracted with architectural firm for design through construction services.

2017-2018 select optimal bidding window so as to award a contract for construction, and project completion not later than August 31, 2018.

<b>Town Manager's Recommendation:</b>
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The Town Manager does not support this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$3,000,000	

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Multi-School Sprinkler and Fire Alarm Study***

SCH-9

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$  
**Original Dept. Request:** **\$70,000**  
**Submitted by:** Christopher Cronin, Director  
Michael Mansfield, Fire Chief  
**Department:** Municipal Services,  
Fire Department  
**Funding Source:** General Fund Revenue

**Project Description:**

Funds are requested to study the current and/or lack of fire suppression and alarm systems in our schools.

**Project Justification and Purpose:**

Multi-School Sprinkler and Fire Alarm Study – Currently the West Middle, West Elementary, Doherty Middle and Shawsheen Elementary schools do not have sprinkler systems. Only a portion of the High School is currently protected by a sprinkler system; the additions and the sections that were renovated in 1995 have a fully functional sprinkler system. Many of the fire alarm systems in our buildings are antiquated and do not accept the newer alarm technology and additional devices cannot be added to them. This study will evaluate all of these school buildings, develop a comprehensive multiyear plan to begin addressing these life safety deficiencies and identify budgetary figures that may be required in future years to complete this capital project.

**Cost Estimate & Timing:**

\$70,000

**Town Manager's Recommendation & Priority Ranking:**

The Town Manager does not support this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$70,000	

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***High Plain and Wood Hill Air Condition Upgrade*** SCH-11

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$775,000  
**Original Dept. Request:** \$775,000  
**Submitted by:** Sheldon H. Berman, Ed.D./  
Chris Cronin, Director  
**Department:** School and  
Municipal Services  
**Funding Source:** General Fund Borrowing

**Project Description:**

When the High Plain and Wood Hill School building was constructed there were provisions made in the mechanical systems, including the installation of AC coils in the air handlers. This CIP request is to install the remaining equipment, controls and wiring to allow for the entire building to be air conditioned.

**Project Justification and Purpose:**

In recent years there have been constant requests to install cooling in more and more classroom spaces throughout the district as 504 and IEP requirements dictate. This has been proving to be very costly as the particular need moves from school to school. The cost to install individual cooling systems and the energy costs associated with them continue even after the student leaves that building because staff continue to run these individual systems after there is no longer a need. When the High Plain and Wood Hill School building was constructed there were provisions made in the mechanical systems, including the installation of AC coils in the air handlers. This CIP request is to install the remaining equipment, controls and wiring to allow for the entire building to be air conditioned. The school district will then be able to consolidate the need for this type of climate control into one building, encompassing Elementary and Middle School grade levels. This building wide system would be more easily controlled and more economical to run than having individual units running system wide.

**Cost Estimate & Timing:**

\$775,000

**Town Manager's Recommendation:**

The Town Manager supports this request.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$775,000	

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Electronic Poll Books***

TC-1

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec.:** \$0  
**Original Dept. Request:** \$30,000  
**Submitted by:** Lawrence Murphy  
**Department:** Town Clerk  
**Funding Source:** General Fund Revenue

**Project Description:**

Purchase electronic poll books for use at elections and town meetings for voter check-in

**Project Justification and Purpose:**

The savings and efficiency of electronic check in at the polls is the future of elections

**Cost Estimate & Timing:**

The poll books can be purchased upon approval of their use by the state legislature. Boston has already purchased them anticipation legislative approval. We will not purchase them unless and until they are approved for use

**Estimated Annual Cost or Savings of Operation and Maintenance:**

Annual licensing/maintenance costs estimated at \$2,500 depending on the number of units in service (\$250 per unit)

**Town Manager's Recommendation & Priority Ranking:**

The Town Manager does not support funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$30,000	\$0

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: Vault Shelving

TC-2

**Department Priority Ranking: 2**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec.:** \$30,000  
**Original Dept. Request:** \$30,000  
**Submitted by:** Lawrence Murphy  
**Department:** Town Clerk  
**Funding Source:** General Fund Revenue

**Project Description:**

Purchase high density shelving for the Records Vault in the Town Office Building

**Project Justification and Purpose:**

The Records Vault is near maximum capacity. High Density shelving is designed to maximize space through the use of track shelving that folds in on itself accordion style. High density shelving will increase our available storage space by 40% to 50%

**Cost Estimate & Timing:**

The shelving can be purchased upon appropriation from a state contract vendor

**Estimated Annual Cost or Savings of Operation and Maintenance:**

There will be no additional recurring costs associated with this purchase. There may be one-time personnel costs to remove, store and replace the existing contents of the Vault during installation of the high density shelving

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$30,000	\$30,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: *New Municipal Services Facility 5 Campanelli Drive*    *TM-1*

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:**    \$17,850,000  
**Original Dept. Request:**    \$17,850,000  
**Submitted by:**    Andrew P. Flanagan  
**Department:**    Town Manager  
**Funding Source:**    General Fund Borrowing

**Project Description:**

Construction a new Municipal Services Facility at 5 Campanelli Drive and related costs.

**Project Justification and Purpose:**

2016 Town Meeting approved funding for land acquisition and design of this project. This facility will replace the current Town Yard site on Lewis Street and will also house administration offices currently located at the Water Treatment Plant and Town Offices.

**Cost Estimate & Timing:**

The estimated cost is \$17.85M. The project team intends to bid this project in April of 2017 to allow for an actual cost figure to be available ahead of 2017 Annual Town Meeting. If the project is approved, it is expected that construction would be completed in summer of 2018.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

The annual operating costs will be determined as part of the final phase of design.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$17,850,000	\$17,850,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Design and Reconstruction of the Ballardvale Fire Station TM-2***

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18: \$300,000**  
**Original Dept. Request:** \$300,000  
**Submitted by:** Andrew P. Flanagan  
**Department:** Town Manager  
**Funding Source:** Free Cash

**Project Description:**

Design and Reconstruction of the Ballardvale Fire Station and related costs.

**Project Justification and Purpose:**

The Ballardvale Fire Station building is inadequately sized and is in poor condition. A new Ballardvale Station would provide an appropriate working environment for Fire and Rescue staff and adequate space for fire apparatus and equipment. The Town is embarking on an architectural feasibility study to determine the design options and compare the potential costs of constructing an addition versus reconstructing as a larger station.

**Cost Estimate & Timing:**

The funding request for FY18 would allow the design process to continue and a subsequent request would fund the cost final design and construction. The current estimated cost for construction is \$8M. The feasibility study will be used to determine the preferred design concept and an updated cost estimate will be provided at that time.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

The annual operating costs will be determined as part of the final phase of design.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$300,000	\$300,000

TOWN OF ANDOVER  
CAPITAL IMPROVEMENT PROGRAM FY2018 – FY2022

PROJECT REQUEST: ***Town Offices Customer Service Bldg. Improvement Study TM-3***

**Department Priority Ranking: 1**  
(1 = highest, 2 = second highest, etc.)

**TM's Rec. for FY18:** \$40,000  
**Original Dept. Request:** \$40,000  
**Submitted by:** Andrew P. Flanagan  
**Department:** Town Manager  
**Funding Source:** General Fund Revenue

**Project Description:**

This study will review existing conditions of Town Offices and identify short term and long term improvements that will improve the customer experience and make it easier for the public to conduct business.

**Project Justification and Purpose:**

One of the six core elements of the Town Manager's new Customer Service Program is physical space improvements. The Town Offices building was formerly a high school. When the building was renovated all of the classrooms were converted into department and division offices. The layout of the corridors and offices presents challenges in delivering the highest levels of customer service. The study will review each public entrance and each office entrance to identify any customer service enhancements. The study will also look at the corridors and the interior circulation patterns to identify recommended wayfinding signage and minor enhancements to the corridors. The results of the study will be a list of improvements for the Town to consider incorporating into ongoing maintenance and repair efforts or as part of future capital projects.

**Cost Estimate & Timing:**

The project will be completed in fiscal year 2018.

**Estimated Annual Cost or Savings of Operation and Maintenance:**

The annual operating costs will be determined as part of the final phase of design.

**Town Manager's Recommendation:**

The Town Manager supports funding this request for FY18.

Fiscal Year	Dept. Request/Proposed	TM Recommended/Plan
2018	\$40,000	\$40,000



**CAPITAL IMPROVEMENT PROGRAM. [AMENDED 4-2-1991, ART. 37]**

- (a) Preparation and submission. The Town Manager annually shall prepare, with the assistance of the Town Planning Board, a five-year capital improvement program. At the request of the Town Manager, all town boards, committees, commissions and other agencies of the town shall submit to the Manager, in such form and according to such schedule of time as the Manager may require, detailed statements of capital improvements requested for their respective boards, committees, commissions and agencies during the next five fiscal years. The Manager shall submit the five-year capital improvement program to the Board of Selectmen at least three months prior to the final date for submission of the annual budget as prescribed by Town Bylaw. Concurrently, copies of the capital improvement program shall also be transmitted to the Finance Committee and School Committee. The capital improvement program shall include:

- (1) A clear general summary of its contents;
- (2) A list of all capital improvements which are proposed to be undertaken during the five fiscal years ensuing, with appropriate supporting information as to the necessity for such improvements;
- (3) Cost estimates, method of financing and recommended time schedules for each such improvement; and
- (4) The estimated annual cost of operating and maintaining any facilities to be constructed or acquired.

The above information may be revised and extended each year with regard to capital improvements still pending or in process of construction or acquisition.

- (b) Action on capital improvement program:
- (1) Notice and hearing. The Board of Selectmen shall cause to be published in one or more newspapers of general circulation in the town the general summary of the capital improvement program and a notice stating: (a) the times and places where copies of the capital improvement program are available for inspection; and (b) the time and place, not less than two weeks after such publication, for a public hearing on the capital improvement program.
  - (2) (Meeting with Finance Committee.) After the public hearing but at least 10 days before adoption of the capital improvement program, the Board of Selectmen shall meet and confer with the Finance Committee concerning the program.
  - (3) Adoption. The Board of Selectmen by resolution shall adopt the capital improvement program with or without amendment after the public hearing and after conferring with the Finance Committee, at least one month before the required date for submission of the annual budget by the Town Manager.

# TOWN OF ANDOVER – FINANCIAL POLICIES

## A. FISCAL POLICIES/GENERAL FUND

1. All current operating expenditures will be paid for with current operating revenues. The purpose of this policy is to maintain a financially sound operating position for the town by promoting Andover's ability to 1) balance its budget on a current basis, 2) maintain reserves for emergencies, and 3) have sufficient liquidity to pay bills on time to avoid short-term borrowing costs. The town will avoid budgetary procedures that balance current expenditures at the expense of meeting future years' expenses, such as postponing expenditures, accruing future years' revenues or rolling over short-term debt.
2. The combined balance of Free Cash and Stabilization Fund should be maintained at 3%-7% of general fund operating revenues.
  - a. The Town will endeavor to maintain a certified Free Cash balance equal to 3% - 7% of general fund. The Free Cash balance is an important indicator of whether a town is living within its means. A declining balance means that the town is spending more on an annual basis than it is collecting in revenues. Andover's goal is to maintain its Free Cash balance at 3% - 7% as a reserve which can be tapped in case of emergency and to provide enough cash in the bank to meet payrolls and pay the bills without having to borrow in anticipation of taxes. Together with the Stabilization Fund the 3-7% goal is a widely accepted measure of good financial standing and a factor in Andover's bond rating. Free Cash provides a financial cushion against events such as a sudden loss of a revenue source, an economic downturn, emergency or other unanticipated expenditures, non-recurring capital expenditures and uneven cash flow. A constant decline or a low level of Free Cash indicates a problem in meeting current expenditures and revenue targets, subsidizing the current operating budget, or utilizing reserves for purposes not planned. A sudden decline in free cash may be temporary or related to planned purposes.
  - b. The Town will endeavor to maintain a Stabilization Fund. Funds held in Stabilization may be appropriated for one-time capital expenses only. The Town may appropriate monies into the Stabilization Fund over two or more years for a specific planned capital project in order to avoid borrowing costs.
3. Free Cash in excess of goal should be used for non-recurring or emergency expenditures or appropriated to a stabilization fund for future capital projects and equipment purchases. This goal, combined with Policy 2, will provide a strategy to avoid creating future operating deficits by over reliance on Free Cash to subsidize the operating budget. The policy should allow, once a reasonable level of Free Cash is attained, for a contingency reserve (either appropriated or unappropriated) to be used for expenditures of a non-recurring nature, capital and equipment purchases, or unexpected, nonrecurring small increases in public service costs.

<b>Fiscal Year</b>	<b>Certified Free Cash Going into Town Meeting</b>	<b>Free Cash as % of Budget</b>	<b>Amount Spent by Town Meeting</b>	<b>Amount Remaining after Town Meeting</b>
2007	5,432,796	4.4%	3,532,368	1,900,428
2008	2,333,996	1.9%	1,763,147	570,849
2009	2,221,828	1.8%	334,000	1,887,828
2010	1,602,874	1.3%	1,123,500	479,374
2011	1,609,894	1.2%	992,000	617,894
2012	1,239,055	0.9%	0	1,239,055
2013	4,073,271	2.6%	3,180,966	892,305
2014	3,963,320	2.4%	3,300,000	663,320
2015	5,761,265	3.3%	4,821,083	940,182
2016	4,843,241	2.9%	3,793,000	1,050,241
2017	Est. 4,000,000			

4. Annual budget should include a Capital Projects Fund from current dollars to maintain an equipment replacement and facilities maintenance schedule equal to 2% of General Fund Operating Budget. Much of the Town's government wealth is invested in our capital plant i.e. buildings, fields, infrastructure, equipment, and vehicles. Long-term debt is an appropriate source of funding for certain types of projects while current revenues should be used for those assets with a short useful life.
5. Annual budget should include 20% of the property taxes from new growth/construction and should be

# TOWN OF ANDOVER – FINANCIAL POLICIES

allocated to capital projects fund. This goal will provide for a source of funding that does not compete with the operating budget but increases or decreases in relation to growth in the budget and growth in the community.

6. Fees and user charges should be reviewed annually in relation to the costs of providing the service. As State and Federal assistance has declined and/or been eliminated, the Town's local non-property tax revenue base has provided more funding for local services. In order to continue to provide these services without an additional burden on the property tax, these fees should be reviewed to cover, when appropriate, any cost increase or decrease associated with delivering that program or service.
7. When positions are funded with grants or user fees, the budget for the use of those revenues should include a transfer to the General Fund to cover employee health insurance costs.

## B. FISCAL POLICIES - WATER & SEWER

1. Rates and fees for water and sewer funds should be set at a level to provide for self-supporting operations. The water and sewer funds should be reviewed annually to project revenues and expenditures for the next fiscal year, estimates of current year, and projections for future years. Estimates of capital projects and debt service should be included in order to project the impact on water or sewer rates. Any water or sewer costs not supported by user revenues or betterments would place a requirement on the General Fund for financial support.
2. Betterments will be assessed for water and sewer extensions. In line with Policy 1, water and sewer projects that are extensions on the existing system will be assessed to the property owner according to the betterment formula for water and sewer.
3. Water and sewer main replacements should be scheduled so as to avoid major increases in water and sewer rates. The current water and sewer funds are established as self-supporting on a cash basis. Revenues are planned to cover operating budgets, indirect and overhead costs, and debt service payments. Depreciation is not funded, therefore, a carefully designed replacement plan is necessary to ensure a rate structure adequate to pay all costs including proposed new long-term debt.
4. Water and sewer debt service should not exceed 40% of water and sewer operating revenues. Water and sewer capital plan should attempt to invest in the town's water and sewer system at a rate that does not place dramatic increases on the ratepayer. One method for accomplishing this objective is to relate debt service to operating revenues at the 1994 fiscal year base level. This practice would allow increased investment in the Town's enterprises but in proportion to revenue increases.

## C. CAPITAL PLANNING POLICIES

### 1. General

CAPITAL PROJECT/ITEM: An expenditure of \$15,000 or more with a useful life greater than one year for one of the following purposes:

- Acquisition of land;
- Construction, expansion or renovation of a facility. Facilities include buildings, streets, bridges, sidewalks, parking lots, utilities, playing fields, cemeteries, playgrounds, etc.;
- Acquisition of large capital items including vehicles, technology, communication equipment, etc;
- Facility maintenance projects including roof repair, HVAC, electrical, masonry, painting, carpeting, street resurfacing, sidewalk reconstruction, playground equipment/major repairs;
- Planning, feasibility, engineering or design studies related to a capital project.

### CRITERIA FOR SETTING PRIORITIES:

- Highest priority – Projects/items essential to protecting the health/safety of the public, employees and school children; Projects essential to protecting public and private property.
- Second highest priority – Projects/items without which an existing or critically needed service cannot be properly delivered in terms of quality or dependability.
- Third highest priority – Projects/items that produce a cost savings to the Town by reducing future replacement or operating costs; Projects that are responsive to the desires of a significant segment of the community.

### FUNDING SOURCES:

- Borrowing – Projects/items of \$25,000 or more with a useful life of at least 10 years may be considered for borrowing. The sources of revenues to support Borrowing are:
  - General Fund – Within Proposition 2½;
  - Sewer Enterprise Fund and Water Enterprise Fund;
  - General Fund – With Debt Exclusion Vote.

## TOWN OF ANDOVER – FINANCIAL POLICIES

- Pay-As-You-Go (PAYGO) – Projects/items of \$15,000 or more with a useful life of at least 5 years may be considered for PAYGO funding. The sources of Pay-As-You-Go funds are:
    - Capital Project Fund supported by General Fund Revenues;
    - Water and Sewer Reserves, Cemetery Receipts, Parking Receipts, Field Rental Receipts; and Cable Franchise Fee Receipts;
    - General Fund Capital Outlay Exclusion;
    - Free Cash warrant articles.
  - Departmental Operating Budget – Projects/items of less than \$15,000 with a useful life of greater than one year may be considered for funding in departmental operating budgets. The sources of revenues to support Operating budgets are:
    - General Fund
    - Water and sewer reserves, cemetery receipts, parking receipts, and rental receipts;
    - Departmental revolving receipts
2. The annual operating cost of a proposed capital project, as well as debt service costs, will be identified before any long-term bonded capital project is recommended. Capital projects may increase future expenses, decrease future expenses or may be cost-neutral. The funding of capital projects may fall within available revenues (taxes or fees) or new revenue sources (debt or capital exclusions). It is important to project the impact that the proposed capital project has on the operating budget so that operating budget funding sources could also be identified or new funding sources recommended.
  3. Capital projects should be reviewed in relation to impact on property tax limitation and annual operating budgets.
    - a. Projects funded with current tax revenues should identify the impact on the annual operating budget.
    - b. Projects funded with long-term debt and not exempted from Proposition 2 ½ should identify the impact on annual operating budgets.
    - c. Projects funded with long-term debt and exempted from Proposition 2 1/2 should identify the impact on the annual tax rate and/or tax bill. (Debt Exclusion)
    - d. Projects funded with capital exclusion should identify the impact on current annual tax rate and/or tax bill. (Capital Expenditure Exclusion)
  4. Funding for discretionary capital projects should be contingent on voter approval of either a debt exclusion or capital expenditure exclusion so that the limited resources available within Proposition 2½ remain available for Town and School operating needs and essential capital projects. Non-discretionary projects are those needed to protect health and safety or to meet legal mandates. Debt Exclusions or Capital Expenditure Exclusions may also be considered for non-discretionary projects on a non-contingent basis.

### D. DEBT MANAGEMENT POLICIES

1. Long-term debt should not be incurred without a clear identification of its financing sources. Long-term debt is generally utilized to fund capital projects that have a long useful life and are relatively expensive. Because of the debt service costs and annual appropriations necessary to retire this debt, there should be clear knowledge and commitment of revenue sources available to pay these costs without competing with operating budgets for limited resources. See Financing Options and Capital Planning policies for further discussion.
2. Betterments will be assessed on all capital projects where applicable. (e.g. water, sewer, street, sidewalks, etc.) When specific benefits accrue to property owner(s), betterments will be assessed in accordance with State Statutes and local policies. This funding source will contribute all or a portion of the costs associated with the capital project.
3. General Fund debt service will not exceed 10% of General Fund revenues. The credit rating agencies, such as Moody's Investors Services, consider debt service on net direct debt (i.e. non-self supporting) exceeding 20% of net operating revenues as a potential problem. Dramatic increases in debt service also indicate potential problems unless revenue sources increase to keep pace with these additions to fixed costs. The 10% benchmark provides a policy to apply to new projects and the growth of revenues to finance such projects.
4. The Town will attempt to maintain a long-term debt schedule so that at least 50% of outstanding principal will be paid within 10 years. Debt service costs include annual principal and interest payments. Debt service costs are also a significant portion of fixed costs. A reasonable maturity schedule not only reduces interest costs but recognizes that capital needs will continue to be identified and recommended. Credit rating bureaus review these maturity schedules and future capital needs.

**TOWN OF ANDOVER  
THREE YEAR CAPITAL HISTORY**

	FY2015	FY2016	FY2017	Grand Total	Funding Source
<b>COMMUNITY SERVICES</b>	<b>\$ 79,000</b>	<b>\$ 70,000</b>	<b>\$ 50,000</b>	<b>\$ 199,000</b>	
Pomps Pond Improvements	\$ 17,000	\$ 20,000	\$ 50,000	\$ 87,000	Taxation
Rec Park Improvements		\$ 50,000		\$ 50,000	Taxation
Skatepark Safety Update	\$ 62,000			\$ 62,000	Taxation
<b>FINANCE</b>	<b>\$ 70,000</b>		<b>\$ 35,000</b>	<b>\$ 105,000</b>	
MUNIS Financial Software Improvements	\$ 70,000		\$ 35,000	\$ 105,000	Taxation
<b>TOWN CLERK</b>		<b>\$ 77,000</b>	<b>\$ 37,000</b>	<b>\$ 114,000</b>	
Election Ballot Tabulators		\$ 77,000		\$ 77,000	Taxation
Election Voting Booths			\$ 37,000	\$ 37,000	Taxation
<b>TOWN MANAGER</b>			<b>\$ 3,425,000</b>	<b>\$ 3,425,000</b>	
New Deyerdmond Fields Lighting			\$ 275,000	\$ 275,000	Free Cash
Purchase 5 Campanelli Drive			\$ 2,250,000	\$ 2,250,000	Free Cash
Town Yard/Municipal Facilities Design			\$ 900,000	\$ 900,000	Taxation
<b>LIBRARY</b>	<b>\$ 50,000</b>	<b>\$ 25,000</b>	<b>\$ 25,000</b>	<b>\$ 100,000</b>	
Interior Library Renovations	\$ 50,000	\$ 25,000	\$ 25,000	\$ 100,000	Taxation
<b>INFORMATION TECHNOLOGY</b>	<b>\$ 471,074</b>	<b>\$ 926,033</b>	<b>\$ 1,024,782</b>	<b>\$ 2,421,889</b>	
Annual PC Replacement/Lease Program	\$ 256,074	\$ 291,033	\$ 274,782	\$ 821,889	Cable
Virtual Desktop Deployment	\$ 200,000			\$ 200,000	Borrow
GIS Update	\$ 15,000			\$ 15,000	Taxation
Digital Records Pilot		\$ 35,000		\$ 35,000	Taxation
Safety & Security Communications Enhancements		\$ 600,000		\$ 600,000	Borrow
Power Infrastructure Refresh			\$ 120,000	\$ 120,000	Taxation
Performance Measurement/Business Intelligence Pilot			\$ 30,000	\$ 30,000	Taxation
1:1 Learning Initiative			\$ 400,000	\$ 400,000	Free Cash
Elementary School Projector Refresh			\$ 200,000	\$ 200,000	Free Cash
<b>POLICE</b>	<b>\$ 231,000</b>	<b>\$ 285,000</b>	<b>\$ 195,000</b>	<b>\$ 711,000</b>	
Vehicle Replacement	\$ 195,000	\$ 195,000	\$ 195,000	\$ 585,000	Taxation
Purchase Equipment	\$ 36,000			\$ 36,000	Taxation
Public Safety Center Camera Replacement		\$ 90,000		\$ 90,000	Taxation
<b>PARKING</b>	<b>\$ 118,000</b>			<b>\$ 118,000</b>	
Parking Management Plan	\$ 18,000			\$ 18,000	Parking
Parking Meter Replacement	\$ 60,000			\$ 60,000	Parking
Parking Enforcement Vehicle	\$ 40,000			\$ 40,000	Parking
<b>FIRE</b>	<b>\$ 129,000</b>	<b>\$ 200,000</b>	<b>\$ 595,000</b>	<b>\$ 924,000</b>	
Vehicle Replacement	\$ 29,000			\$ 29,000	Taxation
Central Station Floor Sealing	\$ 50,000			\$ 50,000	Taxation
Fire Vehicle Mobile Workstations	\$ 50,000	\$ 40,000		\$ 90,000	Taxation
EMS Call Box for Blanchard Ballfields		\$ 10,000		\$ 10,000	Taxation
Public Safety Communications Upgrade		\$ 150,000		\$ 150,000	Free Cash
EMS Call Box for Shawsheen Fields			\$ 20,000	\$ 20,000	Taxation
Fire Apparatus Replacement			\$ 575,000	\$ 575,000	Borrow

**TOWN OF ANDOVER  
THREE YEAR CAPITAL HISTORY**

	FY2015	FY2016	FY2017	Grand Total	Funding Source
<b>PUBLIC WORKS</b>	<b>\$ 629,000</b>	<b>\$ 1,149,000</b>	<b>\$ 655,000</b>	<b>\$ 2,433,000</b>	
Minor Sidewalk Repairs	\$ 100,000	\$ 100,000	\$ 100,000	\$ 300,000	Taxation
Town Yard/Municipal Facilities Consulting/Planning	\$ 25,000	\$ 50,000		\$ 75,000	Taxation
Highway Vehicles - Small	\$ 106,000	\$ 90,000	\$ 100,000	\$ 296,000	Taxation
Highway Vehicles - Large	\$ 260,000	\$ 175,000	\$ 350,000	\$ 785,000	Borrow/Free Cash
New Sidewalk Construction	\$ 138,000	\$ 113,000		\$ 251,000	Taxation/Borrow
Minor Storm Drain Improvements		\$ 300,000		\$ 300,000	Borrow
Sidewalk Construction - River St		\$ 301,000		\$ 301,000	Borrow - Private
Drainage Infrastructure Inspection			\$ 50,000	\$ 50,000	Taxation
Athletic Fields Needs Analysis			\$ 35,000	\$ 35,000	Taxation
Spring Grove Cemetery Improvements		\$ 20,000	\$ 20,000	\$ 40,000	Taxation
<b>WATER/SEWER ENTERPRISE</b>	<b>\$ 785,000</b>	<b>\$ 2,255,000</b>	<b>\$ 3,313,000</b>	<b>\$ 6,353,000</b>	
Water/Sewer Vehicles	\$ 85,000	\$ 55,000	\$ 33,000	\$ 173,000	Reserves
Water/Sewer Rate Study	\$ 100,000			\$ 100,000	Reserves
Fire Hydrant Infrastructure Maintenance	\$ 500,000			\$ 500,000	Borrow
Sewer Master Plan	\$ 100,000			\$ 100,000	Reserves
Major Water Main Replacement		\$ 1,700,000	\$ 1,000,000	\$ 2,700,000	Borrow
Major Water Main Replacement			\$ 500,000	\$ 500,000	Reserves
Water Treatment Plant GAC Replacement		\$ 500,000	\$ 250,000	\$ 750,000	Reserves
Water Storage Tank Rehabilitation			\$ 1,450,000	\$ 1,450,000	Borrow
Water Treatment Plant Window Replacement			\$ 80,000	\$ 80,000	Reserves
<b>PLANT &amp; FACILITIES</b>	<b>\$ 1,873,000</b>	<b>\$ 2,127,000</b>	<b>\$ 1,745,000</b>	<b>\$ 5,345,000</b>	
Town Projects - Building	\$ 225,000	\$ 275,000	\$ 275,000	\$ 775,000	Taxation
Town Projects - Mechanical & Electrical	\$ 140,000	\$ 145,000	\$ 170,000	\$ 455,000	Taxation
Town Vehicle Replacement	\$ 160,000	\$ 150,000	\$ -	\$ 310,000	Taxation
Major Town Projects	\$ 467,000	\$ 1,200,000	\$ 700,000	\$ 2,367,000	Borrow
Town & School Energy Initiatives	\$ 236,000	\$ 337,000	\$ 400,000	\$ 973,000	Borrow/Free Cash
Ballardvale Fire Station Land Purchase	\$ 200,000				Free Cash
Ballardvale Fire Station Addition	\$ 200,000				Free Cash
Town Playground Replacements	\$ 150,000			\$ 150,000	Borrow
Spring Grove Cemetery Maintenance	\$ 6,000	\$ 20,000		\$ 26,000	Perp Care/Taxation
Athletic Field Maintenance	\$ 89,000			\$ 89,000	Fields Revolving
Memorial Playstead Playground		\$ -	\$ 120,000	\$ 120,000	Borrow/Private
Time Keeping System - Town & School			\$ 80,000	\$ 80,000	Taxation
<b>SCHOOL</b>	<b>\$ 2,540,000</b>	<b>\$ 1,852,000</b>	<b>\$ 4,198,000</b>	<b>\$ 8,590,000</b>	
School Projects - All Schools	\$ 128,000	\$ 435,000	\$ 575,000	\$ 1,138,000	Taxation
School - Projects by Building	\$ 385,000	\$ 53,000	\$ 478,000	\$ 916,000	Taxation
Textbooks	\$ 478,000	\$ 590,000	\$ 67,000	\$ 1,135,000	Taxation
Student Mobile Carts	\$ 49,000			\$ 49,000	Taxation
AHS Schematic Design	\$ -			\$ -	Borrow
Major School Projects	\$ 1,500,000	\$ 455,000	\$ 500,000	\$ 2,455,000	Borrow
School Site Improvement Plan	\$ -	\$ 319,000		\$ 319,000	Borrow
AHS Library/Media Center Renovations		\$ -		\$ -	Borrow
School Vehicle			\$ 78,000	\$ 78,000	Taxation
Collins Center Façade Replacement			\$ 2,000,000	\$ 2,000,000	Borrow
Lovely Field Turf Replacement			\$ 500,000	\$ 500,000	Borrow
<b>Grand Total</b>	<b>\$ 6,975,074</b>	<b>\$ 8,966,033</b>	<b>\$ 15,297,782</b>	<b>\$ 30,838,889</b>	
Total Taxation	\$ 2,370,000	\$ 2,450,000	\$ 3,440,000	\$ 8,511,000	
Total Borrow	\$ 3,451,000	\$ 5,199,000	\$ 7,195,000	\$ 16,125,000	
Total Free Cash	\$ 400,000	\$ 662,000	\$ 3,525,000	\$ 5,153,000	
Total Cable	\$ 256,074	\$ 291,033	\$ 274,782	\$ 821,889	

DETAIL DEBT SCHEDULE BY FISCAL YEAR  
As of July 1, 2016  
PRINCIPAL AND INTEREST

ISSUE	ARTICLE	2017	2018	2019	2020	2021	2022	Total All Years
<b>EXEMPT DEBT</b>								
SCHOOL								
EXEMPT ADVANCE REFUNDING (2006)	ART 20-1, 1994	615,087.94	-	-	-	-	-	615,087.94
EXEMPT ADVANCE REFUNDING (2006)	ART 20-2, 1994	47,099.56	-	-	-	-	-	47,099.56
SCHOOL BONDS EXEMPT REFI	ART 19, 1999	138,100.00	133,300.00	123,625.00	117,875.00	-	-	512,900.00
SCHOOL BONDS EXEMPT REFI	ART 9, 2000	182,825.00	166,775.00	156,100.00	149,100.00	142,800.00	-	797,600.00
SCHOOL BONDS EXEMPT REFI	ART 9, 2000	409,964.50	393,012.50	381,287.50	362,987.50	348,137.50	333,487.50	2,547,420.75
BANCROFT FEASIBILITY	ART 59, 2009	13,462.50	13,162.50	12,812.50	12,412.50	12,112.50	11,812.50	143,412.55
MIDDLE/EL SCHOOL Refi NC	ART 9, 2000	220,875.00	215,100.00	208,500.00	197,000.00	175,900.00	165,200.00	1,787,375.00
BANCROFT SCHOOL	ART 03, 2012	1,090,250.00	1,071,000.00	1,043,000.00	1,034,250.00	1,013,250.00	985,250.00	15,346,625.00
BANCROFT SCHOOL	ART 03, 2012	1,145,562.50	1,112,812.50	1,080,062.50	1,047,312.50	1,014,562.50	981,812.50	16,012,937.50
BANCROFT SCHOOL	ART 1, 2013	216,400.00	210,150.00	203,900.00	197,650.00	191,400.00	180,150.00	2,974,600.00
BANCROFT SCHOOL	ART 3, 2010	8,312.50	8,162.50	7,962.50	7,762.50	7,562.50	7,362.50	126,762.50
BANCROFT SCHOOL	ART 1, 2013	65,687.50	64,487.50	62,887.50	61,287.50	59,687.50	58,087.50	975,287.50
TOTAL SCHOOL	017112-5741	4,153,627.00	3,387,962.50	3,280,137.50	3,187,637.50	2,965,412.50	2,723,162.50	41,887,108.30
PUBLIC SAFETY								
PUBLIC SAFETY CENTER REFI	ART 16, 1999	332,850.00	316,725.00	300,850.00	287,350.00	270,300.00	-	1,508,075.00
PUBLIC SAFETY CENTER REFI	ART 40, 2001	12,350.00	11,950.00	11,550.00	11,050.00	10,600.00	10,200.00	67,700.00
PUBLIC SAFETY CENTER REFI	ART 16, 1999	289,625.00	280,225.00	270,825.00	259,075.00	243,600.00	229,500.00	1,572,850.00
PUBLIC SAFETY CENTER	ART 10-1, 2002	6,475.01	6,281.26	6,081.26	5,887.51	5,696.88	5,500.00	46,321.92
PUBLIC SAFETY CENTER	ART 10-1, 2002	33,473.00	32,810.00	31,705.00	29,750.00	28,979.68	28,156.26	348,445.82
TOTAL PUBLIC SAFETY CENTER	017112-5746	674,773.01	647,991.26	621,011.26	593,112.51	559,176.56	273,356.26	3,543,392.74
TOTAL EXEMPT		4,828,400.01	4,035,953.76	3,901,148.76	3,780,750.01	3,524,589.06	2,996,518.76	45,430,501.04
<b>PUBLIC SERVICE ENTERPRISES</b>								
WATER DEBT								
WATER DIST IMPROVEMENT REFI	ART 24, 1996	-	-	-	-	-	-	-
WATER TREATMENT PLANT	ART 42, 2002	-	-	-	-	-	-	-
WATER TREATMENT PLANT	ART 20, 2003	60,730.00	59,230.00	57,480.00	50,580.00	49,230.00	47,880.00	415,087.50
WATER SYSTEM	ART 20, 2003	-	-	-	-	-	-	-
WATER SYSTEM	ART 20, 2003	122,507.50	119,507.50	116,007.50	112,007.50	109,007.50	101,107.50	871,318.75
WATER MAINS	ART 43, 2002	-	-	-	-	-	-	-
WATER MAINS NON-CALLABLE	ART 43, 2002	-	-	-	-	-	-	-
WATER MAINS REFINANCED	ART 20, 2008	32,751.00	31,876.00	30,876.00	29,876.00	28,876.00	27,876.00	245,071.00
WATER SYSTEM	ART 20, 2008	70,325.00	68,412.50	66,575.00	64,712.50	62,825.00	60,912.50	668,737.50
WATER PLANT (WPAT)	ART 34, 2005	283,575.88	283,576.00	283,576.30	283,575.89	283,575.84	283,576.17	3,119,336.10
WATER PLANT (WPAT)	ART 34, 2005	38,370.28	38,370.56	38,370.84	38,370.23	38,370.23	38,370.23	498,816.48
WATER SYSTEM	ART 20, 2003	108,187.51	105,281.26	102,281.26	99,375.01	96,515.63	93,562.50	1,076,784.42
WATER SYSTEM	ART 34, 2005	72,937.50	71,000.00	69,000.00	67,062.50	65,156.25	63,187.50	745,187.50
WATER SYSTEM	ART 41, 2005	5,283.75	5,100.00	-	-	-	-	10,383.75
WATER SYSTEM	ART 34, 2005	21,600.00	21,000.00	-	-	-	-	42,600.00
WATER TREATMENT PLANT	ART 34, 2010	20,550.00	20,100.00	19,575.00	18,975.00	18,525.00	18,075.00	230,625.00
WTP GRANULAR CARBON	ART 33, 2010	47,400.00	46,200.00	44,800.00	43,200.00	42,000.00	40,800.00	264,400.00
WATER TREATMENT PLANT	ART 33, 2010	35,700.00	34,800.00	33,600.00	32,400.00	31,200.00	-	187,700.00
WATER MAINS	ART 31, 2010	38,937.50	38,250.00	37,250.00	36,937.50	36,187.50	35,187.50	548,093.76
WATER TREATMENT PLANT PUMP	ART 44, 2011	11,900.00	11,625.00	11,225.00	11,100.00	10,800.00	10,400.00	67,050.00
WATER MAIN CONSTRUCTION	ART 42, 2011	43,781.26	42,531.26	41,281.26	40,031.26	38,781.26	37,531.26	613,718.88
WATER MAIN REPLACEMENT	ART 35, 2012	128,837.50	125,087.50	121,337.50	117,587.50	113,837.50	105,087.50	1,747,162.50
HYDRANT REPLACEMENT	ART 46, 2013	70,000.00	67,500.00	65,000.00	62,500.00	60,000.00	57,500.00	490,000.00
WATER MAIN REPLACEMENT	ART 41, 2013	87,562.50	85,062.50	82,562.50	80,062.50	77,562.50	75,062.50	1,227,437.50
GAC REPLACEMENT	ART 33, 2010	14,000.00	13,500.00	13,000.00	12,500.00	12,000.00	11,500.00	98,000.00
WATER DISTRIBUTION MAINTENANCE	ART 43, 2012	67,500.00	66,000.00	64,000.00	62,000.00	60,000.00	58,000.00	539,500.00
WATER DISTRIBUTION MAINT PROGRAM	ART 42, 2013	67,500.00	66,000.00	64,000.00	62,000.00	60,000.00	58,000.00	539,500.00
FIRE HYDRANT INFRAST MAINT 1	ART 46, 2016	67,500.00	66,000.00	64,000.00	62,000.00	60,000.00	58,000.00	539,500.00
FIRE HYDRANT INFRAST MAINT 2	ART 22, 2014	67,500.00	66,000.00	64,000.00	62,000.00	60,000.00	58,000.00	539,500.00
WATER TREATMENT PLANT EQUIPMENT	ART 44, 2011	46,850.00	45,800.00	44,400.00	43,000.00	41,600.00	40,200.00	364,250.00
TOTAL WATER	017102-5742	1,631,797.18	1,597,810.08	1,534,197.96	1,491,853.44	1,456,050.21	1,379,816.16	15,669,770.64

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	ISSUE	ARTICLE	2017	2018	2019	2020	2021	2022	Total All Years
SEWER DEBT									
SEWER SO MAIN ST (Betterment) REFI	ART 41, 1999		302,175.00	292,375.00	282,575.00	270,325.00	254,400.00	244,800.00	1,646,650.00
SEWER FOREST HILLS (Betterment) REFI	ART 13, 2000		203,575.00	196,975.00	190,375.00	182,125.00	174,700.00	163,200.00	1,110,950.00
SEWER SO MAIN ST (Betterment)	ART 41, 1999		236,455.00	228,575.00	221,750.00	209,050.00	203,350.00	192,750.00	1,473,955.00
SEWER ROGERS BROOK (Betterment)	ART 42, 1999		59,962.50	58,462.50	56,712.50	54,712.50	48,262.50	46,912.50	370,531.25
SEWER SO MAIN ST (Betterment)	ART 41, 1999		183,862.50	179,362.50	174,112.50	168,112.50	158,662.50	154,312.50	1,309,781.25
SEWER ROGERS BROOK (Betterment)	ART 42, 1999		200,498.00	192,600.00	187,175.00	229,975.00	223,825.00	212,775.00	1,645,623.00
SEWER SO MAIN ST (Betterment)	ART 41, 1999		126,239.00	122,914.00	119,114.00	115,314.00	111,514.00	107,714.00	988,994.00
SEWER SO MAIN ST (Betterment)	ART 2A, 2004		70,325.00	68,412.50	66,575.00	64,712.50	62,825.00	60,912.50	668,737.50
SEWER SO MAIN ST (Betterment)	ART 41, 1999		291,317.50	268,558.75	266,300.00	258,950.00	251,300.00	243,650.00	2,679,876.25
SEWER SO MAIN ST (Betterment)	ART 35, 2000		87,525.00	85,200.00	82,800.00	80,475.00	78,187.50	75,825.00	894,225.00
SEWER SO MAIN ST (Betterment)	ART 41, 1999		315,387.45	307,056.20	308,256.20	299,537.45	290,959.34	282,099.98	3,255,552.77
SEWER SO MAIN ST (Betterment)	ART 2A, 2004		36,468.75	35,500.00	34,500.00	33,531.25	32,578.13	31,593.76	372,593.81
SEWER	ART 33, 2006		28,862.50	28,262.50	27,262.50	21,262.50	20,718.76	20,137.50	269,806.30
SEWER SHAWSHISEEN OUTFALL	ART 33, 2007		116,062.50	113,812.50	110,662.50	106,312.50	103,593.76	100,687.50	1,267,031.30
SEWER - DASCOMB ROAD (Betterment)	ART 36, 2007		15,175.00	15,175.00	14,675.00	14,175.00	13,812.50	13,425.00	168,937.50
SEWER KIRKLAND ROAD (Betterment)	ART 41, 2007		21,125.00	20,675.00	19,925.00	14,175.00	13,812.50	13,425.00	185,337.50
SEWER SAWSHISEEN PUMP STATION	ART 64, 2007		15,475.00	15,175.00	14,675.00	14,175.00	13,812.50	13,425.00	168,937.50
SEWER SHAWSHISEEN OUTFALL	ART 33, 2008		23,981.26	23,531.26	22,931.26	22,331.26	21,731.26	21,131.26	298,725.14
SEWER	ART 46, 2010		19,700.00	14,325.00	13,975.00	13,575.00	13,275.00	12,975.00	202,650.00
SEWER MAINS	ART 51, 2001		15,987.50	15,687.50	15,287.50	14,887.50	14,487.50	14,087.50	199,150.00
SHAWSHISEEN PUMPING STATION	ART 64, 2007		15,575.00	15,300.00	14,900.00	14,175.00	14,475.00	14,075.00	219,237.50
REPAIR SANITARY SEWER	ART 33, 2006		13,937.50	13,662.50	13,262.50	12,837.50	12,337.50	12,437.50	149,543.76
SEWER MAIN CONSTRUCTION	ART 51, 2008		23,362.50	22,950.00	22,350.00	22,162.50	21,712.50	21,112.50	328,856.26
SEWER MAIN CONSTRUCTION	ART 32, 2010		38,937.50	38,250.00	37,250.00	36,937.50	36,187.50	35,187.50	548,093.76
SEWER INFRASTRUCTURE VEHICLE	ART 37, 2012		34,500.00	33,675.00	32,475.00	32,100.00	31,200.00	-	163,950.00
TOTAL SEWER	017-102-5743		2,496,771.96	2,406,472.71	2,349,472.42	2,306,726.46	2,222,220.25	2,108,651.50	20,587,726.35
TOTAL ENTERPRISE			4,128,569.14	4,004,282.79	3,883,474.42	3,798,579.90	3,678,270.46	3,488,467.66	36,257,496.99
GENERAL FUND NON-EXEMPT									
SCHOOL BUILDINGS	ART 28-2-2002		65,100.00	63,300.00	61,200.00	-	-	-	189,600.00
WEST EL - ASBESTOS	ART 12, 2002		108,170.00	102,215.00	95,880.00	-	-	-	306,265.00
COLLINS CTR HVAC ADV REF NC	ART 29, 2004		-	-	-	-	-	-	-
COLLINS CTR HVAC	ART 29, 2004		39,025.00	37,800.00	36,400.00	17,850.00	-	-	131,075.00
SCHOOL RENOVATIONS ADV REF NC	ART 11, 2005		-	-	-	-	-	-	-
SCHOOL RENOVATIONS	ART 11, 2005		67,950.00	66,200.00	64,200.00	62,200.00	60,200.00	58,200.00	573,350.00
WEST EL - ASBESTOS	ART 12, 2002		13,665.00	13,282.50	12,915.00	12,542.50	12,165.00	11,782.50	119,547.50
SCHOOL RENOVATIONS	ART 12, 2002		16,511.25	16,007.50	16,467.50	15,925.00	15,391.25	14,840.00	109,422.50
WEST EL - ASBESTOS	ART 12, 2002		6,275.01	6,081.26	5,881.26	5,681.26	5,496.88	5,300.00	39,821.92
SCHOOL RENOVATIONS	ART 17, 2006		18,825.01	18,243.76	17,643.76	17,062.51	16,490.63	15,900.00	119,465.67
SCHOOL RENOVATIONS	ART 11, 2005		42,943.75	41,587.50	35,287.50	34,125.00	32,981.25	31,800.00	249,325.00
SCHOOL RENOVATIONS	ART 17, 2006		68,798.76	67,418.76	65,118.76	61,818.76	60,187.50	58,443.76	692,905.08
SCHOOL ROOF	ART 17, 2007		117,165.00	114,825.00	110,925.00	109,025.00	106,125.00	103,025.00	1,188,940.00
SCHOOL RENOVATIONS	ART 28, 2007		37,156.26	36,406.26	35,156.26	33,906.26	33,000.00	32,031.26	368,093.82
LOVELY FIELD RENOVATIONS	ART 29, 2008		27,750.00	22,000.00	21,000.00	-	-	-	70,750.00
SCHOOL ROOF	ART 15, 2007		120,400.00	117,200.00	114,000.00	110,000.00	108,400.00	103,200.00	1,285,600.00
SCHOOL REMODELING	ART 28, 2007		22,725.00	22,125.00	21,525.00	20,775.00	20,100.00	19,500.00	246,450.00
SCHOOL REPAIRS	ART 27, 2008		81,525.00	79,325.00	77,125.00	74,375.00	67,000.00	65,000.00	843,350.00
SCHOOL REMODELING	ART 28, 2007		23,325.00	22,875.00	22,275.00	21,675.00	21,075.00	20,475.00	273,881.26
SCHOOL REPAIRS	ART 27, 2008		68,150.00	66,800.00	65,000.00	63,200.00	61,400.00	54,600.00	758,300.00
SCHOOL REPAIRS	ART 56, 2009		69,756.26	68,406.26	66,606.26	64,806.26	63,006.26	61,206.26	813,581.38
SCHOOL RENOVATIONS	ART 41, 2010		159,875.00	156,875.00	152,875.00	148,875.00	144,875.00	140,875.00	1,991,500.00
SCHOOL REMODELING	ART 16, 2011		70,887.50	64,462.50	62,887.50	61,087.50	59,737.50	58,387.50	894,162.55
WEST MIDDLE SCHOOL	ART 17, 2011		49,912.50	48,862.50	47,637.50	46,237.50	45,187.50	44,137.50	631,506.25
SCHOOL ROOF REPAIRS	ART 41, 2010		41,637.50	35,812.50	34,937.50	33,937.50	33,187.50	32,437.50	499,012.55
VETERANS WAR MEMORIAL AUDITORIUM	ART 58, 2009		53,912.50	52,862.50	51,462.50	50,062.50	48,662.50	47,262.50	625,400.00
SCHOOL BUILDING RENOVATIONS	ART 25, 2012		97,637.50	95,712.50	97,912.50	87,100.00	85,150.00	82,550.00	976,762.50
WEST MIDDLE SCHOOL REPAIRS	ART 38, 2012		44,337.50	43,512.50	42,312.50	36,187.50	35,187.50	34,187.50	563,818.76
BANCROFT SCHOOL	ART 1, 2013		84,556.26	82,056.26	79,556.26	72,056.26	69,006.26	67,556.26	1,121,193.88
SCHOOL REPAIRS	ART 36, 2013		78,806.26	76,556.26	74,306.26	72,056.26	69,806.26	67,556.26	1,104,693.88
SCHOOL SITE IMP (DOHERTY)	ART 18, 2013		210,150.00	204,150.00	198,150.00	192,150.00	186,150.00	180,150.00	2,945,850.00
WEST MIDDLE HVAC	ART 38, 2013		132,700.00	128,450.00	124,200.00	119,950.00	115,700.00	111,450.00	1,380,700.00
SCHOOL BLDG MAINT & RENOVATION	ART 52, 2014		150,000.00	147,000.00	143,000.00	139,000.00	135,000.00	131,000.00	1,759,000.00
BANCROFT SCHOOL	ART 1, 2013		24,450.00	24,000.00	23,400.00	22,800.00	22,200.00	21,600.00	356,512.50
TOTAL SCHOOL	017-102-5741		2,214,078.82	2,142,411.32	2,067,243.82	1,807,232.82	1,732,668.79	1,670,453.80	23,229,837.00



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STREET								
RED SPRING ROAD BRIDGE	ART 25, 2003	-	-	-	-	-	-	-
RED SPRING ROAD BRIDGE NON COL	ART 25, 2003	-	-	-	-	-	-	-
BRIDGE CONSTRUCTION	ART 54, 2005	13,685.00	13,282.50	12,915.00	12,542.50	12,165.00	11,782.50	119,547.50
STORM DRAINS	ART 50, 2008	7,737.50	7,587.50	7,337.50	7,087.50	6,906.26	6,712.50	84,468.80
HIGHWAY	ART 74, 1999	-	-	-	-	-	-	-
MAIN ST DEVELOPMENT	ART 48, 2002	32,900.00	31,700.00	25,625.00	-	-	-	90,225.00
BRIDGE CONSTRUCTION	ART 52, 2007	7,775.00	7,625.00	7,425.00	7,225.00	7,025.00	6,825.00	91,293.76
BRIDGE CONSTRUCTION	ART 32, 2008	31,318.76	30,718.76	29,918.76	29,118.76	28,318.76	27,518.76	373,456.40
BRIDGE REPAIR	ART 24, 2011	7,312.50	7,162.50	6,987.50	6,787.50	6,637.50	6,487.50	98,787.55
PARKING LOT	ART 25, 2011	6,543.76	6,393.76	6,218.76	6,018.76	5,868.76	5,718.76	63,378.22
DRAINAGE	ART 33, 2011	14,625.00	14,325.00	13,975.00	13,575.00	13,275.00	12,975.00	197,575.00
DRAINAGE (HIGH PLAIN)	ART 26, 2011	15,225.00	-	-	-	-	-	15,225.00
SURFACE DRAIN CONSTRUCTION	ART 50, 2008	23,137.50	22,687.50	22,087.50	21,487.50	20,887.50	20,287.50	267,300.00
BRIDGE REPAIR	ART 32, 2008	15,575.00	15,300.00	14,900.00	14,775.00	14,475.00	14,075.00	219,237.50
STORM DRAINAGE	ART 33, 2011	7,787.50	7,650.00	7,450.00	7,387.50	7,237.50	7,037.50	109,618.76
HIGH PLAIN/FISHBROOK	ART 42, 2012	100,287.50	98,362.50	95,562.50	94,687.50	92,587.50	89,787.50	1,114,018.76
SIDEWALK CONSTRUCTION	ART 20, 2014	33,900.00	28,000.00	27,000.00	26,000.00	-	-	114,900.00
TOTAL STREET	017102-5744	317,790.02	290,795.02	277,402.52	246,692.52	215,383.78	209,207.52	2,959,032.25
MUNICIPAL FACILITIES								
PUBLIC BUILDINGS	ART 28-1, 2002	-	-	-	-	-	-	-
TOWN BUILDINGS	ART 28-1, 2002	8,680.00	8,440.00	8,160.00	-	-	-	25,280.00
BRIDGES/BUILDINGS	ART 32, 2001	-	-	-	-	-	-	-
BRIDGES/BUILDINGS	ART 32, 2001	81,095.00	78,845.00	69,360.00	-	-	-	229,300.00
TOWN HVAC	ART 46, 2006	21,138.75	20,480.00	18,820.00	18,200.00	17,590.00	16,960.00	129,508.75
TOWN BUILDING RENOVATION	ART 27, 2007	21,262.50	20,812.50	20,062.50	19,312.50	18,768.76	18,187.50	187,543.76
TOWN BUILDING RENOVATION	ART 28, 2007	22,775.00	22,325.00	21,575.00	20,825.00	20,281.26	19,700.00	237,937.54
PUBLIC SAFETY (NON EXEMPT PORTION)	ART 10, 2002	5,907.00	5,790.00	5,595.00	5,250.00	5,114.06	4,968.76	61,490.44
TOWN BUILDINGS	ART 27, 2007	30,300.00	29,500.00	28,700.00	27,700.00	26,800.00	26,000.00	328,600.00
TOWN BUILDING REMODELING	ART 55, 2009	53,800.00	52,750.00	51,350.00	49,950.00	48,550.00	47,150.00	615,912.50
TOWN BUILDING REPAIRS	ART 42, 2010	13,462.50	13,162.50	12,812.50	12,412.50	12,112.50	11,812.50	143,412.55
TOWN BUILDING REPAIRS	ART 34, 2011	36,562.50	35,812.50	34,937.50	33,937.50	33,187.50	32,437.50	493,937.55
FIRE STATION PLANNING	ART 34, 2009	20,300.00	-	-	-	-	-	20,300.00
DPW VEHICLES	ART 40, 2010	25,375.00	-	-	-	-	-	25,375.00
TOWN BUILDING REPAIRS	ART 27, 2007	7,312.50	7,162.50	6,987.50	6,787.50	6,637.50	6,487.50	98,787.55
BLANCHARD BALLFIELDS	ART 57, 2009	31,250.00	25,575.00	24,875.00	24,075.00	23,475.00	22,875.00	258,587.50
PLAYGROUND RENOVATIONS	ART 23, 2007	20,350.00	19,937.50	19,337.50	18,700.00	18,100.00	17,500.00	188,575.00
PLAYGROUND REPLACEMENTS	ART 23, 2012	20,450.00	20,037.50	19,437.50	19,250.00	18,800.00	18,200.00	188,375.00
TOWN BUILDING REMODELING	ART 24, 2012	40,837.50	40,012.50	38,812.50	37,500.00	36,250.00	35,000.00	440,000.00
BALMORAL FENCE/MASONRY	ART 28, 2012	13,250.00	12,975.00	12,575.00	12,450.00	12,150.00	11,750.00	114,250.00
FIRE COMMUNICATIONS	ART 31, 2012	28,937.50	23,250.00	22,450.00	22,200.00	21,600.00	20,800.00	139,237.50
TECHNOLOGY HARDWARE	ART 22, 2012	213,587.50	208,637.50	196,437.50	194,250.00	189,000.00	182,000.00	1,183,912.50
TECHNOLOGY SOFTWARE	ART 22, 2012	102,750.00	-	-	-	-	-	102,750.00
YOUTH CENTER	ART 3, 2011 STM	175,125.00	170,125.00	165,125.00	160,125.00	155,125.00	150,125.00	2,454,875.00
TOWN BUILDING RENOVATIONS	ART 28, 2013	31,425.00	30,425.00	29,425.00	28,425.00	27,425.00	26,425.00	332,925.00
TECHNOLOGY INFRASTRUCTURE	ART 22, 2012	46,000.00	44,800.00	43,200.00	41,600.00	-	-	175,600.00
TOWN & SCHOOL ENERGY INITIATIVES	ART 39, 2014	33,150.00	32,400.00	31,400.00	30,400.00	29,400.00	28,400.00	249,950.00
TOWN BLDG & FACILITY MAINTENANCE	ART 43, 2014	66,100.00	64,600.00	57,600.00	55,800.00	54,000.00	52,200.00	496,100.00
DPW VEHICLES	ART 45, 2014	62,650.00	56,000.00	54,000.00	52,000.00	-	-	224,650.00
PLAYGROUND REPLC & HANDICAP ACCE	ART 41, 2014	20,250.00	19,800.00	19,200.00	18,600.00	18,000.00	17,400.00	161,850.00
TOTAL MUNICIPAL FACILITIES	017102-5745	1,265,983.25	1,070,255.00	1,013,635.00	912,400.00	795,466.58	769,528.76	9,310,285.64
PUBLIC SAFETY								
FIRE TRUCK	ART 31, 2004	-	-	-	-	-	-	-
FIRE TRUCK NON CALLABLE	ART 31, 2004	-	-	-	-	-	-	-
FIRE TRUCK REFINANCED	ART 31, 2004	45,100.00	43,700.00	42,100.00	33,150.00	-	-	164,050.00
AMBULANCE	ART 30, 2010	-	-	-	-	-	-	-
FIRE TRUCK	ART 37, 2006	36,450.00	35,287.50	34,087.50	32,925.00	31,781.25	30,600.00	201,131.25
TOTAL PUBLIC SAFETY	017102-5746	81,550.00	78,987.50	76,187.50	66,075.00	31,781.25	30,600.00	365,181.25

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LAND ACQUISITION								
LAND ACQUISITION	ART 23, 2002	-	-	-	-	-	-	-
LAND ACQUISITION NON CALLABLE	ART 23, 2002	-	-	-	-	-	-	-
LAND ACQUISITION REFINANCE	ART 23, 2002	65,490.00	63,740.00	61,740.00	54,840.00	53,040.00	51,240.00	491,540.00
LAND ACQUISITION	ART 32, 2000	-	-	-	-	-	-	-
LAND ACQUISITION NON CALLABLE	ART 32, 2000	-	-	-	-	-	-	-
LAND ACQUISITION REFINANCE	ART 32, 2000	96,395.00	88,870.00	86,070.00	83,270.00	80,470.00	77,670.00	676,770.00
LAND ACQUISITION	ART 12, 2001	80,440.00	78,145.00	71,032.50	68,983.75	66,907.50	64,803.75	667,885.00
LAND ACQUISITION	ART 23, 2002	10,200.00	-	-	-	-	-	10,200.00
16 PEARSON ST	ART 3A, 2007	34,625.01	33,656.26	32,656.26	31,887.51	30,734.38	29,750.00	308,409.42
18 PEARSON ST	ART 4A, 2007	28,350.00	27,575.00	26,775.00	26,000.00	25,237.50	24,450.00	268,587.50
37 PEARSON ST	ART 5A, 2007	35,437.51	34,468.76	33,468.76	32,500.01	31,546.88	30,562.50	335,734.43
15 BLANCHARD ST	ART 51, 2007	153,188.75	149,100.00	144,900.00	140,831.25	136,828.13	132,693.76	1,564,893.81
LAND ACQUISITION	ART 12, 2001	7,775.00	7,625.00	7,425.00	7,225.00	7,025.00	6,825.00	91,293.76
LAND ACQUISITION FOSTERS POND	ART 55, 2010	15,987.50	15,687.50	15,287.50	14,887.50	14,487.50	14,087.50	199,150.00
LAND ACQUISITION BLANCHARD ST	ART B1, 2011	23,543.76	23,093.76	22,493.76	21,893.76	21,293.76	20,693.76	282,381.38
LAND ACQUISITION CHANDLER RD	ART 33, 2013	69,150.00	67,150.00	65,150.00	63,150.00	61,150.00	59,150.00	942,437.50
TOTAL LAND ACQUISITION	017102-5747	620,562.53	589,111.28	566,998.78	545,268.78	528,720.65	511,926.27	5,839,282.80
LANDFILL CLOSURE	ART 44, 1999	34,162.50	33,206.25	32,287.50	31,356.25	30,412.50	29,456.25	298,868.75
LANDFILL PLANS	ART 43, 2006	-	-	-	-	-	-	-
LANDFILL	ART 44, 1999	21,937.50	21,487.50	20,962.50	20,362.50	19,912.50	19,462.50	296,362.55
LANDFILL	ART 44, 1999	21,937.50	21,487.50	20,962.50	20,362.50	19,912.50	19,462.50	296,362.55
LANDFILL	ART 44, 1999	7,312.50	7,162.50	6,987.50	6,787.50	6,637.50	6,487.50	98,787.55
LANDFILL	ART 44, 1999	7,312.50	7,162.50	6,987.50	6,787.50	6,637.50	6,487.50	98,787.55
LANDFILL	ART 44, 1999	17,512.50	17,012.50	16,512.50	16,012.50	15,512.50	15,012.50	245,487.50
DEPARTMENTAL EQUIPMENT	ART 02, 2008	126,600.00	121,800.00	#VALUE!	-	-	-	248,400.00
DEPARTMENTAL EQUIP	ART 23, 2011	60,900.00	-	-	-	-	-	60,900.00
REC PARK LIGHTING	ART 48, 2008	11,050.00	10,650.00	10,250.00	-	-	-	31,950.00
CLOSING LANDFILL	ART 44, 1999	58,187.50	57,137.50	55,737.50	54,337.50	52,937.50	51,537.50	887,337.50
TOTAL LANDFILL	017102-5749	366,912.50	297,106.25	170,687.50	156,006.25	151,962.50	147,906.25	2,563,243.95
TOTAL GENERAL FUND NON-EXEMPT		4,866,877.12	4,468,666.37	4,172,155.12	3,733,666.37	3,455,983.55	3,339,622.60	44,266,862.89

TOWN OF ANDOVER, MASSACHUSETTS						
ANALYSIS OF BONDS AUTHORIZED AND UNISSUED						
ACTIVITY FOR FY2016						
ARTICLE	PROJECT NAME	ORIGINAL AUTHORIZATION	AUTHORIZATION JULY 1, 2015	NEW AUTHORIZATIONS FY2016	RESCIND	REMAINING AUTHORIZATION JUNE 30, 2016
	<b>SEWER ENTERPRISE</b>					
ART 64 2007	SHAWSHEEN PUMPING STATION	750,000	350,000	-	-	350,000
ART 33 2008	SHAWSHEEN RIVER OUTFALL SEWER	4,000,000	2,200,000	-	-	2,200,000
		4,750,000	2,550,000	-	-	2,550,000
	<b>WATER ENTERPRISE</b>					
ART 44 2011	WTP VARIABLE SPEED PUMP (Split Funding)	499,100	-	-	-	-
ART 36 2012	WATER PLANT BACKWASH TANK	300,000	300,000	-	-	300,000
ART 38 2015	WATER MAIN REPLACEMENT	1,700,000	1,700,000	-	-	1,700,000
ART 41 2016	WATER MAIN REPLACEMENT	1,000,000	-	1,000,000	-	1,000,000
ART 44 2016	WATER STORAGE TANKS REPLACEMENT	1,450,000	-	1,450,000	-	1,450,000
		-	-	-		-
		499,100	2,000,000	2,450,000		4,450,000
	<b>GENERAL GOVERNMENT</b>					
ART 44 1999	LANDFILL CLOSURE	2,200,000	-	-		-
ART 31 2008	LANDFILL CLOSURE	7,370,000	6,695,000	-		6,695,000
	(Note: Ledge Rd Stabilization Fund # 6503)	9,570,000	6,695,000	-		6,695,000
	<b>SCHOOL</b>					
ART 59 2009	BANCROFT FEASIBILITY STUDY *	525,000	363,000	-		363,000
ART 3A 2010	BANCROFT SCHOOL PROJECT *	43,835,000	15,596,751	-		15,596,751
ART 1 2013 STM	BANCROFT SCHOOL PROJECT #2 *	5,715,000	1,085,802	-		1,085,802
ART 17 2011	WEST MIDDLE SCHOOL GREEN REPAIR **	1,450,907	595,000	-	595,000	-
ART 39 2015	SCHOOL BUILDING MAINTENANCE & IMPROVE	455,000	455,000	-		455,000
ART 40 2015	SCHOOL SITE IMPROVEMENTS (HOLD)	319,000	319,000	-		319,000
ART 29 2016	COLLINS CENTER FAÇADE	2,000,000	-	2,000,000		2,000,000
ART 34 2016	SCHOOL BUILDING MAINTENANCE & IMPROVE	500,000	-	500,000		500,000
ART 30 2016	LOVELY FIELD TURF REPLACEMENT	500,000	-	500,000		500,000
		-	-	-		-
		55,299,907	18,414,553	3,000,000	595,000	20,819,553
	<b>ROAD AND DRAINAGE</b>					
ART 45 2015	WOBURN ST SIDEWALK CONSTRUCTION	113,000	113,000	-		113,000
ART 62 2015	RIVER ST SIDEWALK CONSTRUCTION	301,000	301,000	-		301,000
ART 44 2015	MINOR STORM DRAIN IMPROVEMENTS	300,000	300,000	-		300,000
		-	-	-		-
		714,000	714,000	-		714,000
	<b>CONSERVATION AND LAND ACQUISITION</b>					
ART 12 2001	LAND ACQUISITION LOWELL JCT RD	2,000,000	800,000	-		800,000
ART 23 2002	CONSERVATION FUND	1,500,000	400,000	-		400,000
		1,500,000	1,200,000	-		1,200,000
	<b>TECHNOLOGY</b>					
ART 22 2012	TECHNOLOGY AND INFRASTRUCTURE	2,500,000	300,000	-		300,000
ART 40 2014	TECHNOLOGY HARDWARE & SOFTWARE	200,000	200,000	-		200,000
ART 38 2015	SAFETY & SECURITY UPGRADES	600,000	600,000	-		600,000
		2,700,000	1,100,000	-		1,100,000
	<b>TOWN BUILDINGS</b>					
ART 46 2015	TOWN BUILDING AND FACILITY MAINTENANCE	1,200,000	1,200,000	-		1,200,000
ART 28 2016	TOWN BUILDING AND FACILITY MAINTENANCE	700,000	-	700,000		700,000
ART 57 2016	MEMORIAL PLAYSTEAD PLAYGROUND	120,000		120,000		120,000
		2,020,000	1,200,000	820,000		2,020,000
	<b>MISCELLANEOUS</b>					
ART 26 2016	DPW VEHICLES	-	-	350,000		350,000
ART 27 2016	FIRE APPARATUS	-	-	575,000		575,000
		-	-	-		-
		0	-	925,000		925,000
<b>TOTAL GENERAL GOVERNMENT</b>		71,803,907	29,323,553	4,745,000	595,000	33,473,553
<b>GRAND TOTAL</b>		77,053,007	33,873,553	7,195,000	595,000	40,473,553

TOWN OF ANDOVER  
Long Range Projection FY2018-FY2022

I REVENUE																			II APPROPRIATIONS - Town & School Operations																		
A. Property Taxes																			A. Capital & Debt Service																		
FY 2016 RECAP	FY 2017	Dollar Change	Percent Change	FY 2018	Dollar Change	Percent Change	FY 2019	Dollar Change	Percent Change	FY 2020	Dollar Change	Percent Change	FY 2021	Dollar Change	Percent Change	FY 2022	Dollar Change	Percent Change																			
119,797,140	124,996,152	5,199,012	4.34%	130,721,055	5,724,904	4.58%	136,028,879	5,307,824	4.06%	141,469,399	5,440,520	4.00%	147,045,931	5,576,533	3.94%	152,761,877	5,715,946	3.89%																			
2,994,929	3,124,904	129,975	4.34%	3,266,028	143,123	4.58%	3,400,722	132,696	4.06%	3,536,735	136,013	4.00%	3,676,148	139,413	3.94%	3,819,047	142,899	3.89%																			
2,204,083	2,600,000	395,917	17.96%	2,039,798	(560,202)	-21.55%	2,039,798	0	0.00%	2,039,798	0	0.00%	2,039,798	0	0.00%	2,039,798	0	0.00%																			
Unused Excess Levy Capacity	(1,603,771)	(1,216,464)	-24.15%	(300,000)	916,464	-75.34%	(300,000)	0	0.00%	(300,000)	0	0.00%	(300,000)	0	0.00%	(300,000)	0	0.00%																			
Exempt Debt Service	4,304,490	3,597,424	(707,066)	-16.43%	4,036,464	439,040	12.20%	3,906,286	(130,178)	-3.23%	3,786,129	(120,157)	-3.08%	3,533,000	(253,129)	-6.69%	3,009,557	(523,443)	-14.82%																		
Total Property Taxes																																					
B. State Aid	12,770,543	13,009,841	1.87%	13,976,343	6,663,328	5.01%	145,076,612	5,110,342	3.76%	150,532,060	5,456,376	3.76%	155,994,877	5,462,817	3.63%	161,330,279	5,335,402	3.42%																			
C. Local Receipts	10,405,050	10,997,428	5.69%	11,447,300	449,872	4.09%	11,447,300	0	0.00%	11,447,300	0	0.00%	11,447,300	0	0.00%	11,447,300	0	0.00%																			
D. Free Cash for CIP & Articles	4,893,083	3,793,000	-22.48%	300,000	(3,493,000)	-92.08%	0	(300,000)	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%																			
E. Other Revenues - Indirects, Cable, Bond Prem	2,003,185	2,131,924	6.43%	2,053,479	(78,445)	-3.66%	2,121,853	68,374	3.33%	2,205,593	83,740	3.95%	2,250,962	45,369	2.06%	2,230,434	(20,528)	-0.91%																			
TOTAL REVENUES																			TOTAL DEBTS/OBLIGATIONS/CAPITAL																		
157,768,731																			176,400,738																		
163,034,208																			170,743,450																		
5,265,478																			5,194,728																		
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REVENUE AND EXPENDITURE PROJECTIONS		5/4/15	11/1/16	11/3/16				
REVENUES	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	
	RECAP	PROJECTION	PROJECTION	PROJECTION	PROJECTION	PROJECTION	PROJECTION	FY18 ASSUMPTIONS
PROPERTY TAXES								
Prior year Tax Levy Limit	119,797,140	124,996,152	130,721,055	136,028,879	141,469,399	147,045,931	152,761,877	Beginning tax levy limit based on full levy FY16
Annual Increase	2,994,929	3,124,904	3,268,026	3,400,722	3,536,735	3,676,148	3,819,047	Additional 2.5% allowed by law
Certified New Growth	2,204,083	2,600,000	2,039,798	2,039,798	2,039,798	2,039,798	2,039,798	New growth estimate based on actual 5-yr. avg.
Unused Tax Levy Capacity	(1,603,771)	(1,216,464)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	Unused Levy ATM 2015
TOTAL	123,392,381	129,504,591	135,728,879	141,169,399	146,745,931	152,461,877	158,320,722	
ADDITIONAL PROP 2 1/2 PROPERTY TAXES								
Debt Service Exclusion (Existing)	5,871,254	4,828,401	4,035,955	3,901,150	3,780,750	3,524,589	2,996,520	Existing bonded projects
Debt Service Exclusion estimate (To be borrowed)	78,647	-	85,000	83,250	81,500	79,750	78,000	Borrow remaining \$1M FY17
Less Premium Adjustment	(94,055)	(88,874)	(84,491)	(78,114)	(76,121)	(71,339)	(64,963)	Per Town Acct calculation
Less State Reimbursement	(1,551,356)	(1,142,103)	-	-	-	-	-	Per SBAB Schedule
TOTAL	4,304,490	3,597,424	4,036,464	3,906,286	3,786,129	3,533,000	3,009,557	
STATE AID								
Chapter 70 Education Aid	9,191,614	9,768,234	9,865,916	9,964,576	10,064,221	10,164,863	10,266,512	Increase 1%
Charter Tuition/Capital Assessment Reimbursement	4,465	8,037	8,037	8,037	8,037	8,037	8,037	Level
School Construction Reimb SBAB	1,551,356	1,142,103	-	-	-	-	-	Actual Debt Offset - Final Payment
Reserve for Direct Expenditures (C/S Offsets)	46,140	44,964	44,964	44,964	44,964	44,964	44,964	
Veterans Benefits	77,771	78,521	78,521	78,521	78,521	78,521	78,521	
Vet, Blind, Surv Spouse Exempt	41,306	41,767	41,767	41,767	41,767	41,767	41,767	
State Owned land	210,663	208,157	208,157	208,157	208,157	208,157	208,157	
General Municipal Aid	1,647,227	1,718,058	1,735,239	1,752,591	1,770,117	1,787,818	1,805,696	Increase 1%
TOTAL	12,770,542	13,009,841	11,982,601	12,098,612	12,215,784	12,334,128	12,453,654	
GENERAL LOCAL REVENUES								
Motor Vehicle Excise	4,845,000	5,000,000	5,032,000	5,032,000	5,032,000	5,032,000	5,032,000	5 Year Average
Licenses/Permits	1,950,000	2,237,000	2,390,000	2,390,000	2,390,000	2,390,000	2,390,000	"
Penalties/Interest	400,000	430,000	426,100	426,100	426,100	426,100	426,100	"
Fines	372,000	300,000	376,100	376,100	376,100	376,100	376,100	"
General Government	230,000	230,000	300,000	300,000	300,000	300,000	300,000	"
Fees	50,000	78,500	87,500	87,500	87,500	87,500	87,500	"
Investment Income	50,000	70,428	67,600	67,600	67,600	67,600	67,600	"
Meals Tax	510,000	520,000	537,000	537,000	537,000	537,000	537,000	"
Hotel/Motel Excise	1,545,300	1,580,000	1,570,000	1,570,000	1,570,000	1,570,000	1,570,000	"
Medicaid Reimbursement	265,000	300,000	340,000	340,000	340,000	340,000	340,000	"
Library	11,000	1,500	-	-	-	-	-	"
Miscellaneous/PILOTS	176,750	250,000	321,000	321,000	321,000	321,000	321,000	Increase 2.5%
TOTAL	10,405,050	10,997,428	11,447,300	11,447,300	11,447,300	11,447,300	11,447,300	
OFFSET LOCAL REVENUES								
Community Services	520,000	550,000	500,000	500,000	500,000	500,000	500,000	Based on avail bal/reserved direct exp within dept. budgets
Elder Services	97,000	97,000	80,000	80,000	80,000	80,000	80,000	"
Municipal Facilities	70,000	52,000	72,000	72,000	72,000	72,000	72,000	"
Spring Grove Cemetery	46,000	46,000	50,000	50,000	50,000	50,000	50,000	"
Police Off-Duty Fee	80,000	75,000	80,000	80,000	80,000	80,000	80,000	"
Ambulance	1,300,000	1,250,000	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000	"
TOTAL	2,113,000	2,070,000	1,882,000	1,882,000	1,882,000	1,882,000	1,882,000	
ENTERPRISE FUNDS								
Water and Sewer Rates and Operating Reserves	12,193,000	13,830,928	13,594,804	14,293,938	14,679,967	15,210,353	15,590,612	
TOTAL	12,193,000	13,830,928	13,594,804	14,293,938	14,679,967	15,210,353	15,590,612	
OTHER AVAILABLE FUNDS- BUDGET								
Off-Street Parking Fund (Operating Budget)	210,000	210,000	210,000	210,000	210,000	210,000	210,000	Reserved direct expenditure in GF Dept Budget
Cable - Technology P&I	325,438	479,561	321,838	305,937	300,050	250,050	182,000	Actual Debt Offset
Cemetery Perpetual Care	6,000	6,000	6,000	6,000	6,000	6,000	6,000	Cemetery Maintenance
Andover Youth Foundation	30,000	30,000	30,000	30,000	30,000	30,000	30,000	Youth Center Exp
CD&P Wetland fees	25,000	25,000	25,000	25,000	25,000	25,000	25,000	Wetlands
TOTAL	596,438	750,561	592,838	576,937	571,050	521,050	453,000	
OTHER AVAILABLE FUNDS- ARTICLES								
Insurance Recovery Fund	-	21,356	-	-	-	-	-	
Cable Lease IT	291,033	274,782	-	-	-	-	-	Cable funds/Lease Pc's/Per CIO Schedule 9/15 CIP
Water/Sewer Reserves and Articles	855,000	863,000	703,000	663,000	1,015,000	750,000	750,000	\$113,000 CIP, \$300,000 Maint Art, \$500,000 Water Main (Based on 9/15 CIP
Water/Sewer Reserves Operating	766,767	-	506,634	211,583	161,507	73,654	75,495	
Bond Premium Stabilization	200,000	100,000	100,000	100,000	100,000	100,000	100,000	Estimate
Article Transfer from Tennis Court to Track	101,233	-	-	-	-	-	-	
TOTAL	2,214,033	1,259,138	1,309,634	974,583	1,276,507	923,654	925,495	
FREE CASH								
Capital Projects Articles	876,767	3,525,000	300,000	-	-	-	-	
Ledge Rd Landfill	1,000,000	-	-	-	-	-	-	
OPEB Liability	1,248,316	-	-	-	-	-	-	
Bond Stabilization Fund	768,000	268,000	-	-	-	-	-	
Other Articles	1,000,000	-	-	-	-	-	-	Snow & Ice - FY16
TOTAL	4,893,083	3,793,000	300,000	-	-	-	-	
* GRAND TOTAL REVENUES *								
INCREASE OVER PRIOR YEAR	172,882,017 5.20%	178,812,911 3.40%	180,874,520 1.20%	186,349,055 3.00%	192,604,669 3.40%	198,313,362 3.00%	204,082,340 2.90%	

REVENUE AND EXPENDITURE PROJECTIONS	5/4/15	11/1/16	11/3/16					
EXPENDITURES	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	
	RECAP	PROJECTION	PROJECTION	PROJECTION	PROJECTION	PROJECTION	PROJECTION	FY18 ASSUMPTIONS
<b>OBLIGATIONS</b>								
Retirement	7,946,015	8,360,984	9,513,240	10,464,565	11,511,021	12,662,123	13,928,335	Based on ARB 7.25% Funded 2032 10% Increase Per Year
Insurance/Workers Comp	732,553	783,831	838,699	897,408	960,227	1,027,443	1,099,364	Increase 7%
Unemployment Compensation	158,000	160,000	163,200	166,464	169,793	173,189	176,653	Increase 2%
Health insurance	17,052,416	17,905,037	19,206,365	20,595,168	22,095,371	23,814,066	25,667,810	Increase 8% after Projected OPEB Savings
Other State Assessments	517,183	613,417	628,752	644,471	660,583	677,098	694,025	Increase 2.5%
Overlay	876,291	1,026,479	900,000	900,000	1,200,000	900,000	900,000	Reval Year 2020
OPEB	500,000	1,127,572	1,264,338	1,416,888	1,569,559	1,631,453	1,696,026	Per OPEB Funding Schedule
Technical Schools	510,000	610,000	628,300	647,149	666,563	686,560	707,157	Increase 3%
Water and Sewer Operating Budget	7,229,676	7,670,495	7,962,488	8,179,793	8,403,364	8,633,386	8,849,221	Per TM Projection/OPEB/Est Retirement Included
Reserve for Direct Expenditures	46,140	44,964	44,964	44,964	44,964	44,964	44,964	Cherry sheet offsets (School Lunch excluded FY16)
Other Local Expenditures (Deficits to be Raised)	39,490	-	156,647	150,000	150,000	150,000	150,000	Overlay/court judgments, deficits to be raised
<b>TOTAL</b>	<b>35,607,764</b>	<b>38,302,779</b>	<b>41,306,993</b>	<b>44,106,870</b>	<b>47,431,445</b>	<b>50,400,281</b>	<b>53,913,554</b>	
<b>DEBT SERVICE</b>								
Existing Non-Exempt General Fund Debt	4,265,787	4,427,149	4,146,830	3,866,220	3,433,116	3,205,934	3,157,623	Actual Debt
Appropriated/Not Borrowed Non- Exempt General Fund	506,589	562,215	1,030,150	1,046,022	1,273,519	1,510,591	1,291,197	Includes Landfill
New General Fund CIP PROJECTS	50,591	-	-	1,090,859	1,907,125	2,422,410	2,744,310	Includes Municipal Services Facility and Ballardvale Fire
New Debt for Future Captal Projects Est \$4.2M Per Year	-	-	-	-	-	-	-	
Cable Funds - Technology	325,438	479,561	321,838	305,937	300,050	250,050	182,000	Actual
BAN Interest non-exempt	80,000	80,000	80,000	80,000	180,000	180,000	180,000	
General Fund Bond Issue Expense	105,000	105,000	105,000	105,000	105,000	105,000	105,000	
Existing Water and Sewer Debt	3,947,345	4,128,570	4,004,284	3,883,274	3,798,579	3,678,271	3,678,271	Actual debt
New Water and Sewer CIP PROJECTS	270,000	144,500	468,025	691,538	798,988	1,036,438	1,036,438	
Water and sewer BAN interest/bond expense	35,000	35,000	35,000	35,000	35,000	35,000	35,000	
BAN Interest Exempt	-	-	-	-	-	-	-	
New Exempt Debt	78,647	-	85,000	83,250	81,500	79,750	78,000	
Existing Exempt Debt - School and Public Safety Center	5,871,254	4,828,400	4,035,955	3,901,150	3,780,750	3,524,589	2,996,520	Actual Debt
<b>TOTAL</b>	<b>15,535,651</b>	<b>14,790,395</b>	<b>14,312,082</b>	<b>15,088,250</b>	<b>15,693,627</b>	<b>16,028,033</b>	<b>15,484,359</b>	
<b>Capital Projects Fund from taxation</b>								
Capital Projects Fund from taxation	2,450,000	3,440,000	3,743,875	3,086,843	3,237,029	3,007,619	3,310,568	FY17 2.17% of GF operating revenues
<b>TOTAL</b>	<b>2,450,000</b>	<b>3,440,000</b>	<b>3,743,875</b>	<b>3,086,843</b>	<b>3,237,029</b>	<b>3,007,619</b>	<b>3,310,568</b>	
<b>OFFSET/AVAILABLE FUNDS EXPENDITURES</b>								
Offset Local Revenues	2,113,000	2,070,000	1,882,000	1,882,000	1,882,000	1,882,000	1,882,000	
Other Available Funds- Budget	265,000	265,000	265,000	265,000	265,000	265,000	265,000	Parking(\$210,000)/wetlands(\$25,000)
<b>TOTAL</b>	<b>2,378,000</b>	<b>2,335,000</b>	<b>2,147,000</b>	<b>2,147,000</b>	<b>2,147,000</b>	<b>2,147,000</b>	<b>2,147,000</b>	
<b>ARTICLES</b>								
Articles from free cash	1,000,000	-	-	-	-	-	-	S&I Deficit
Ledge Rd Landfill - Free Cash	1,000,000	-	-	-	-	-	-	
OPEB - Free Cash	1,248,316	-	-	-	-	-	-	OPEB Contribution - Estimate
Bond Stabilization Fund - Free Cash	768,000	268,000	-	-	-	-	-	
Capital Projects Articles - Free Cash	876,767	3,525,000	300,000	-	-	-	-	
Articles from Water/Sewer Rates/Reserves	855,000	1,163,000	703,000	663,000	1,015,000	750,000	750,000	Water-\$113,000/Water Maint-\$300,000/Water Main \$500,000
Articles from taxation	142,360	150,007	31,000	31,000	31,000	31,000	31,000	Transp-\$12k/civic events-\$5k/fireworks-\$14K/Sch Twn Tech-\$119,007
Other Available Funds	398,266	302,138	6,000	6,000	6,000	6,000	6,000	Town School Technology \$274,782 Cable/\$6,000 Cemetery/\$21,356 Ins Rec
<b>TOTAL</b>	<b>6,288,709</b>	<b>5,408,145</b>	<b>1,040,000</b>	<b>700,000</b>	<b>1,052,000</b>	<b>787,000</b>	<b>787,000</b>	
<b>* TOTAL DEDUCTIONS *</b>	<b>62,260,124</b>	<b>64,276,319</b>	<b>62,549,950</b>	<b>65,128,963</b>	<b>69,561,101</b>	<b>72,369,933</b>	<b>75,642,481</b>	
<b>BAL. FOR TOWN &amp; SCHOOL OPERATING BUDGETS</b>	<b>110,621,893</b>	<b>114,536,592</b>	<b>118,324,570</b>	<b>121,220,092</b>	<b>123,043,567</b>	<b>125,943,429</b>	<b>128,439,859</b>	
<b>\$ INCREASE FOR TOWN &amp; SCHOOL OPERATING BUDGETS</b>	<b>3,388,893</b>	<b>3,914,700</b>	<b>3,787,978</b>	<b>2,895,522</b>	<b>1,823,475</b>	<b>2,899,861</b>	<b>2,496,430</b>	
<b>% INCREASE OVER PRIOR YEAR</b>	<b>3.16%</b>	<b>3.54%</b>	<b>3.31%</b>	<b>2.45%</b>	<b>1.50%</b>	<b>2.36%</b>	<b>1.98%</b>	
	<b>172,882,017</b>	<b>178,812,911</b>	<b>180,874,520</b>	<b>186,349,055</b>	<b>192,604,669</b>	<b>198,313,362</b>	<b>204,082,340</b>	